Greenprint for Akron

April 2009

Our Vision:

The Greenprint for Akron sets a vision for a sustainable community that contributes to climate and environmental protection which will create opportunities for a healthier quality of life and economic growth.

A letter from the mayor

To the Citizens of Akron:

We are caretakers of our land, our water, and our environment. We must make wise choices today, so that our grandchildren and their children's children have a safe and clean city and a prosperous community.

That's why in August, 2007, I launched a new initiative to create a "Greenprint" for Akron. Just as contractors follow blueprints to build a house; our greenprint helps us plan how we will build an environmentally-friendly city in the 21st century.

We did not create a new department or add employees to prepare the extensive plan that is summarized in the document you are holding. Instead, we already had a well-established environmentally-friendly organization in place - Keep Akron Beautiful — whom I tasked with the job of spearheading Akron's effort to bring government, residents, and the private sector together to plan for the future.

How important is this task? As of today, 916 mayors from all 50 states have signed the Mayor's Climate Protection Agreement which was developed during my term as president of the U.S. Conference of Mayors in 2004. I was proud to have Akron be among the first to join.

Akron has had a history of creating environmentally-friendly policies, even before it was fashionable. Fifteen years ago, Akron began curbside recycling. We developed the nation's first electric generating anaerobic digester system at our Water Pollution Control Plant. We have been recycling motor oil and asphalt for years.

This summary defines the vision for Akron's Greenprint, and the smart goals that we will strive to meet. Each goal has clear and measurable objectives. For example, I want the city to reduce our CO2 emissions from government operations as well as the community at large, by 5% by 2013, 10% by 2018, and 20% by 2025. These are aggressive goals, but Akron has been at the forefront of environmental issues and I know we can lead the way again. We will also work closely with Summit County Executive, Russ Pry and his Summit County Green Task force on joint projects to enhance the environment.

Many of our department managers have played a key role in developing this plan for the 21st century. My thanks to each of them and to Paula Davis, President and CEO of Keep Akron Beautiful.

The Greenprint is a living document, and as we learn more about climate change and our role in protecting the environment, we will fine-tune our plan for the future. I look forward to working with you in showing the nation again, how Akron is a leader in protecting the environment.

Sincerely,

Don Plusquellic, Mayor

Akron's Historical Connection with its Environment

Akron is a city driven by imagination made reality. In 1825, Akron became a city only because a few citizens imagined a canal could be cut through its steep and rolling terrain. From this birth Akron grew into a vibrant city center propelled by the continued imagination of its hardworking population and the wealth of natural resources that surrounded the hilltop city. Akron's imagination took resources from the earth and turned them into energy, products, infrastructure, and ideas that defined a region and helped sustain a country through depressions and wars. Canal City. Rubber City. Polymer City. Never before had a city grown so quickly and Akron became overwhelmed by its multiplying population. Services and infrastructure were pushed to their breaking points and the natural environment that had blessed our city with its prosperity became threatened. Changes had to be made.

In 1921, the Akron Metropolitan Park District began to acquire land for preservation and eventually grew into the Summit County Metro Parks that boasts over 9,000 acres and 4 million visitors. The City, along with Keep Akron Beautiful, contributes to the community's quality of life by maintaining 131 city park sites that comprise over 950 acres. Joint Economic Development Districts (JEDDs) have created an opportunity to correct infrastructure issues that threaten local waterways and wildlife. The City began to recognize its natural resources as a part of its identity, its responsibility, and its key to the future.

Akron has always seen a challenge as an extraordinary opportunity. Here is our next challenge: preserve and improve the Akron environment; contribute to a healthier quality of life for the Akron community; and grow the Akron economy to the betterment of both the environment and the community. What is our most promising natural resource? The people of Akron.

Creating a Sustainability Operating System

As with any plan, it is only as good as the process that develops it. It is through this process that the City learns to define goals and guidelines and, basically, how it will accomplish what it needs to do.

Since 2007 when Akron's Mayor Don Plusquellic first announced that the City would develop a sustainability plan and tapped Keep Akron Beautiful with the charge to lead the process; community members, city workers, and local sustainability experts Affinity Consultants, Inc. have been working diligently to create a strategy.

Keep Akron Beautiful and the City of Akron utilize a secured web-based intranet site for the decision-making and implementation process. The site is an internal communication tool to inspire collaboration and promote the efficiency and effectiveness of the Greenprint Plan.

Guiding Principles

Akron has chosen 7 Guiding Principles that will assist the City with moving towards sustainability. The next step will be for the Task Force to determine City policies that will support the Guiding Principles and provide opportunities to implement a strategic Greenprint path.

Guiding Principle One: Akron will reduce its climate change impact.

The City of Akron has established a baseline indicator of its greenhouse gas (GHG) emissions, a human driven factor that effects climate change. In 2008, two City of Akron Engineers were trained in how to gather the necessary governmental and community data and input it into the ICLEI Cities for Climate Protection software to establish a baseline year for the City and the community's GHG emissions. The year 2005 was selected as the baseline year for the GHG ICLEI survey because that was the year that provided the best available data. The engineers collated the data received from the sources and input the data into the ICLEI software program to generate the report.

Paula Davis, President and CEO of Keep Akron Beautiful, and Director of the Greenprint Plan has captured actions the City of Akron has already implemented. Key successes will be quantified and, along with other community factors, input into the ICLEI Cities for Climate Protection software to offer an estimated projection of emission reductions since 2005. Estimating GHG reductions of selected actions in the Plan will assist the City in understanding the implications of current policy and assist in reaching adopted GHG reduction targets. During this draft process, the City committed to a three-step targeted reduction of the City of Akron's GHG levels from the 2005 baseline. The reductions are 5% by 2013, 10% by 2018, and achieve a 20% reduction by 2025.

Guiding Principle Two: Akron will implement efficient waste management and waste reduction.

Reducing and reusing waste, and to some degree recycling, would reduce greenhouse gas emissions, which contribute to global warming, and impact climate change. Additionally, waste reduction conserves raw materials and reduces the air and water pollution associated with the extraction, collection, and processing of raw materials.

The City of Akron will capture the quantitative affect of its current household curbside recycling initiative and success stories. These results will indicate the disposal trend and provide an opportunity for future initiatives.

Guiding Principle Three: Akron will promote environmental literacy.

The City will take environmental literacy a step further in engaging the community. This engagement will also be a tool in the decision-making process/guiding principle matrix. The engagement will include interviews and surveys of Akron residents and Akron-area businesses. These interviews and surveys will gauge perceptions of and receptiveness to proposed Greenprint ideas and processes among both residents and the business community in order to aid in plan prioritization. This will allow City officials to learn what the community's response will be to certain Greenprint programs and which programs the community emotionally connects with and believes will better their quality of life.

Guiding Principle Four: Akron will institute an environmentally, socially, and economically responsible purchasing program.

The ability to extend Akron's positive impact beyond City boundaries is assisted by this guiding principle. Furthermore, reviewing purchasing processes and understanding the benefits of responsible purchasing can open new networks and partnerships for the City. Existing purchasing partners can be encouraged to develop new policy that promotes corporate industry changes. Additionally, fresh innovative partnerships can create opportunities for new resources for the City by generating strengthened relationships with regulatory agencies, the media, and the sustainable business innovators.

Guiding Principle Five: Akron will seek outside funding sources and maintain fiscal prudence.

The role of city government is to provide basic municipal services at the lowest cost possible. Akron's goal is to maintain this same role while cohesively implementing sustainable actions. However, as an example, existing antiquated service rate structures might not comply with this concept and will need to be reviewed. Therefore, solutions must go beyond the norm and creatively find the funding to maintain basic services. The City government must be very careful to identify between basic necessary services, short-term solutions, and the long-term vision of sustainability. Not everything that provides an immediate cost benefit or avoids a negative fiscal impact is a long-term benefit to the community.

Opportunities in outside funding sources, including state and federal earmarked funds, will be actively researched and sought. This will encourage accountability, discipline, commitment, and completion of projects. Fiscal transparency and funding projects that are encouraged by community research will additionally provide a strong backbone to this guiding principle.

Guiding Principle Six: Akron will promote and seek the development of green jobs.

The Environmental Business Journal notes that, in the United States in 2005, the green industry was worth about $265 billion and employed 1.6 million people in an estimated 118,000 jobs. It is estimated to be growing at a rate of approximately 5% annually.

Akron has always been on the cusp of innovation with its history in the rubber industry and its current polymer industry and biomedical corridor. The development of the City's Greenprint Plan provides opportunity for the promotion of the City as a green-friendly environment for new green industries. The movement of green industries into the area through the Akron Global Business Accelerator will provide job creation and retain green job seekers that would otherwise go elsewhere for opportunities. The influx of new green technological industry will also create competition and ingenuity among existing local industries.

Local green jobs would help to revitalize the City's strong middle class, provide pathways out of poverty, encourage new skills (and some new thinking about old skills), and strengthen the community, besides protecting the health of the planet.

Guiding Principle Seven: Akron will encourage the concept of new urbanism and regional smart growth.

New urbanism falls in line with City goals on many levels. This engagement can retain residents, create community connections, develop a stronger tax base, and encourage infill housing and job development – all leading to an economically sustainable City. It offers opportunities in cross-collaboration, with stakeholders and the community, to resolve development issues, create planning and investment guidelines, gain support leading to innovative strategies, and ultimately define a strengthened cultural identity for the City.

Furthermore, a city that incorporates these changes has an opportunity to better public health. A 2006 study prepared for the US Green Building Council (USGBC), Congress for the New Urbanism (CNU), Natural Resources Defense Council (NRDC) and the participants in the Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) Core Committee focused on understanding the impact the built environment and development changes has on public health. These improvements include links between air quality from vehicle emissions and respiratory and cardiovascular health, roadway designs that can decrease traffic accidents, walking and biking paths and increased public transit use that can lead to improved physical fitness, and how these changes can create healthy social networks for the community.

Additionally, appealing to quality of life standards and creating a city center where people choose to live and companies choose to invest is one of the most effective ways to achieve environmental sustainability by reducing land consumption and the greenhouse gases produced by extraneous transit.

Greenprint Akron:
A sustainability plan for the City of Akron

Greenprint Mission:

Greenprint Akron creates an environmental partnership to foster a sustainable, eco-friendly community through education and leadership.

Greenprint Vision

Greenprint Akron sets a vision for a sustainable community that contributes to climate and environmental protection which will create opportunities for a healthier quality of life and economic growth.

Cities for Climate Change Campaign

ICLEI – Local governments for sustainability

Milestone 1

Conduct a local inventory and forecast of greenhouse gas emissions.

Milestone 2

Adopt an emissions reduction target.

Milestone 3

Draft an action plan to achieve target.

Milestone 4

Implement an action plan.

Milestone 5

Evaluate report on progress and update plans.

Greenprint Guiding Principles

1. Akron will reduce its climate change impact.
2. Akron will implement efficient waste management and waste reduction.
3. Akron will promote environmental literacy.
4. Akron will institute an environmentally, socially, and economically responsible purchasing program.
5. Akron will seek outside funding sources and maintain fiscal prudence.
6. Akron will promote and seek the development of green jobs.
7. Akron will encourage the concept of new urbanism and regional start growth.

Eight Smart Areas	Smart Area Goals
Smart Energy & Emissions Energy Efficiency, Alternative Energy, Green Rooftops, Green Building, EnergyStar, Advocating for Energy Audits	1. Reduce the total amount of electricity and fuel used in City own 2. Research and pilot alternative sources of energy for City serv 3. Promote green building practices through the combined Buil 4. Strive to create a sustainable culture within the City that enc energy efficiently. 5. Develop or support programs in the community that assists res save money through energy efficiency. Improve air quality by st
Smart Water & Wastewater Management Water Quality & Conservation, Improving Water & Wastewater Systems, Methane Recovery, Waste Sludge to Energy, Storm Water Pollution Prevention	1. Promote water conservation in Akron. 2. Establish programs and policies that improve water quality. 3. Continue the production and development of alternative energy at the Waste Water Treatment facilities. 4. Strive for energy conservation within the Akron Public Utilities Bureau.
Smart Materials & Solid Waste Management Environmental Purchasing, Curbside Recycling, Reducing Consumption of Natural Resources, Preventing Non-point Source Pollution	1. Strive to recycle more of Akron's municipal solid waste stream. 2. Develop sustainable procurement practices, policies and procedures. 3. Limit non-point source pollution from Akron's roads and highways.
Smart Transit Mass/Rapid Transit, Walkable Urban Neighborhoods, Bicycle Plan & Towpath Trails, Carpooling, Conversion of Municipal Fleets, Efficient Traffic Control	1. Manage City transportation fleet in a manner that limits energy usage. 2. Maintain an efficient transportation network. 3. Align transportation plans and land use decisions to limit travel miles.
Smart Development Neighborhood Revitalization, Brownfield Recapture, Reducing Urban Sprawl, Land Banking, Adaptive Reuse, Historical Preservation	1. Encourage neighborhood revitalization. 2. Modify building regulations and standards. 3. Continue land reutilization. 4. Align land development standards. 5. Curb urban sprawl.
Smart Conservation of Natural Resources Urban Forestry, Preserving Streams & Watershed, Maintaining and Expanding Open Spaces, Maintaining Municipal Park System	1. Preserve and improve the Urban Forest. 2. Preserve and conserve wetlands, and natural areas. 3. Preserve and improve water and air quality. 4. Conserve public green space.
Smart Community Education and Promotion of Progress Educating Youth on Sustainable Practices, Greenprint Implementation and Tracking, Clearinghouse for Climate Change, Community Engagement, Promotion of School Recycling, Employee Training & Incentives, Commercial/Industrial Support	1. Educate the government and community about strategies for reducing global warming and conserving natural resources. 2. Introduce a Greenprint Plan for Akron. 3. Promote progress towards the Greenprint for Akron goals and track targeted greenhouse gas reductions.
Smart Green Jobs Green Job Recruitment, Promotion of the Greentech Incubator, Providing Green Skills Training Locally	1. Increase the number of green jobs in Akron.

	Ideas That Are Working	New Initiatives	Green Economic Stimulus Proposals
ed buildings and facilities, using the 2005 baseline year data. ices. ding Department. courages employees to conserve resources and work more sidents, industry and companies to reduce their emissions and triving to meet mandated level of particulates.	LEED (Leadership in Energy and Environmental Design) buildings in Akron, Ohio: Akron Zoo Komodo Kingdom, Metro Parks Ranger Station/ Seiberling NatureRealm, WAC FirstEnergy, METRO RTA Intermodal Transit Facility, STEM National Inventors Hall of Fame Middle School. Complete retrofit of parking deck lights to LED (Light Emitting Diodes) at Akron Centre Super Block.	EnergyStar Portfolio Manager to track improvements in energy use from the ICLEI 2005 baseline survey. Reviewed and re-issued Service Department Anti-Idling Policy. Required LEED certification for a new office park to be built on White Pond Drive through the Job Ready Site state program.	Install green rooftops at the Landmark Building and the Cascade Parking Deck, which would be Cascade Plaza. LED lighting replacements: complete all traffic signals citywide, retrofit all city parking decks, yard lights, street lights and city owned lights.
	Joint Economic Development Districts (JEDDs) enable the city to reinvest funds into water and sanitary sewer projects in township service areas-eliminating aging septic systems. Constructed Rack 40 (Cuyahoga Street) Storage Basin to capture up to 10 million gallons of combined sewer overflow during major rain events.	Convert the remaining two-thirds of the Akron Compost Facility over to the Anaerobic Digestion System producing electricity for the grid. Rain barrel and rain garden clinics for installation and maintenance at homes. Host a pharmaceuticals collection event. Provide home tests for leaking toilets, promote water waste tips.	Combined sewer overflow separation projects, storage, and addition treatment. Build the Ohio Canal Tunnel. Sanitary sewers reconstruction and rehabilitation. Water main replacements and substation equipment replacements.
	Automated curbside recycling with Smart Carts since 2007 increasing household participation to 57%. Hot in Place asphalt recycling machines reduces greenhouse gas emissions by 55%. City curbside recycling program expanded to accept all plastics, #1-7 resins.	Provide recycling receptacles at public venues, parks, Community Learning Centers and Derby Downs. Sponsor in-house procurement fairs that educate department managers about eco-friendly alternatives. Reduce harmful applications of salt on roadways by using brine solutions, geo melt and calcium chloride.	Purchase a waste oil burning furnace for Motor Equipment. Install solar panels for electricity at the Municipal Center on Triplett Boulevard. Pilot the use of a wind turbine at the Municipal Center to reduce electrical costs. Build a new trash/recycling Transfer Station that would obscure the transfer of trash from residents and be built to LEED certification.
	Installed 3,200 red LED bulbs in traffic signals. Service Department re-issued their Anti-Idling Policy for enforcement. Construction continues on the Ohio & Erie Canal Towpath for bikers and hikers through downtown Akron with the bridge link from Beech Street.	Last link on the Ohio & Erie Canal Towpath will be from Wilbeth Road to Waterloo in South Akron as the towpath stretches from Cleveland to Zoar. Bike Aboard! Program of the Cuyahoga Valley Scenic railroad brings park visitors into the Northside Train Station. Akron Police Department has two Bike Units.	Build a CNG fueling station. Purchase replacement equipment for 3 1 ton chassis that are CNG capable. Replace city fleet cars with extended range electric, plug-in hybrid, battery electric B.E.V. hybrid. Build the necessary electrical outlet infrastructure. Purchase 4 plug-in alternative fuel trucks and three hybrid mowers for Public Works.
	City has received over $12 million in Clean Ohio Fund and US EPA grants since 2003 for Brownfield cleanups. Sustainable development initiatives have resulted in Northside condos, Spicer Village Townhomes, and 2 Akron Metropolitan Housing Hope VI grant projects. Historic preservation is important adaptive reuse of buildings downtown like the O'Neil's building, the Troppe Historic District, and the Quaker Square hotel to university housing.	Encourage new in-fill housing in existing neighborhoods. Continue concentrated neighborhood rehabilitation and waiver demolition programs. Establish energy efficiency standards for housing projects that include city investment. Create a Brownfield inventory program. Promote use of land banking to assemble vacant land for redevelopment.	Seiberling environmental cleanup for $40 million mixed-use conference center, adjacent to new Goodyear Corporate Headquarters, to retain and grow local jobs. Acquisition, assembly and preparation of property for Wilbeth and Main neighborhood/ business development around new $84 million Bridgestone International Tech Center. Preparing the 23 acres of urban industrial park land with extension of utilities and grading for former Brown-Graves site.
	Forest to Furnishings recycles remnants of the Urban Forest into architectural moldings and hardwood flooring. Flowerscapes in downtown Akron have provided 28 years of professional public land beautification. Lock 3 Farmers' Markets are attracting large crowds downtown-winter and summer.	The city is in the process of inventorying the urban canopy using the I-Tree software. The city is completing the landscape plan for the new policy of no-mowing on the expressways. City of Akron has a representative on the NE Ohio Food Congress and has since started a pilot community gardening program. Map and conserve the wetlands and flood plains.	Bath Road erosion control project. Provide green landscaping for Lock 1, Lock 2 and Lock 3 along towpath. Demolish Rubber Bowl and restore green space near Akron Fulton Airport. Haley's Ditch restoration and cleanup.
	Awarded a 2009 OEEF $50,000 grant to train 6th grade Akron Public Schools science teachers in the Ohio Energy Projects energy efficiency curriculum. Taught 7 lessons and sent energy efficiency kits home to 1,700 families. Created a Green Ribbon Panel of City Managers for environmental literacy. Joined ICLEI and worked through 3 milestones.	Create a city model of energy efficiency by retro-fitting Municipal Hall. Sponsor an awards programs for individuals, organizations and businesses based on green technology and energy efficiency. Partner with Summit County on projects that will create more green jobs, clean the air and move the region towards alternative energy. Conduct the ICLEI greenhouse gas survey every five years.	Fund the continuation of the piloted OEEF Be E3 Smart energy efficiency curriculum in all sixth grade classrooms-public, private and charter, each spring semester for 3 years. Includes pre and post home audits in over 2,000 homes, aided by take home kits with devices that will save energy and water.
	Green jobs have supported all of the LEED green construction projects in Akron. The Akron Global Business Accelerator is on the cutting edge as a green technology incubator for companies in the early stages of advanced/ renewable energy processes and cleantech companies.	Work with Economic Development to seek out alternative fuel, energy efficiency and recycling companies to launch in Akron by creating a incubator space. Work with area universities and trade schools to ensure the proper training for energy efficiency improvements is available. Promote the successes of clean technology companies residing in the Akron Global Business Accelerator.	Creation of a LEED certified Biomedical Incubator, within the designated corridor, to house start-up biomedical companies. Restore and build out 655 S. Broadway as an expansion of the Akron Global Business Accelerator.

Smart Action Areas

Smart Energy & Emissions

Goal 1: Reduce the total amount of electricity and fuel used in City owned buildings and facilities, using the 2005 baseline year data.

Goal 2: Research and pilot alternative sources of energy for City services.

Goal 3: Promote green building practices through the combined Building Department.

Goal 4: Strive to create a sustainable culture within the City that encourages employees to conserve resources and work more energy efficiently.

Goal 5: Develop or support programs in the community that assists residents, industry and companies to reduce their emissions and save money through energy efficiency. Improve air quality by striving to meet mandated level of particulates.

Objectives:

1. Reduce energy use in City facilities.
2. Pilot alternative sources of energy.
3. Promote green building through new city/county department.
4. Incorporate resource conservation into City culture.
5. Develop community programs that help meet emission reduction goals, improving air quality.

Smart Water & Wastewater Management

Goal 1: Promote water conservation in Akron.

Goal 2: Establish programs and policies that improve water quality.

Goal 3: Continue the production and development of alternative energy at the Waste Water Treatment facilities.

Goal 4: Strive for energy conservation within the Akron Public Utilities Bureau.

Objectives:

1. Provide public information.
2. Encourage public participation.
3. Direct capital investment to meet goals.
4. Incorporate alternative energy uses.

Smart Materials & Solid Waste Management

Goal 1: Strive to recycle more of Akron's municipal solid waste stream.

Goal 2: Develop sustainable procurement practices, policies and procedures.

Goal 3: Limit non-point source pollution from Akron's roads and highways.

Objectives:

1. Expand the City's residential curbside recycling program by increasing weekly participation and the volume of recyclables collected.
2. Manage and measure a workplace recycling program in City of Akron office buildings.
3. Work towards a zero landfill policy of waste generated through the Public Works Department.
4. Provide expanded opportunities for the citizens of Akron to recycle.
5. Work with large institutions in the community to increase or improve system-wide recycling programs.
6. Continue to identify green, biodegradable cleaning and custodial products for use by Building Maintenance Department (BMD) that effectively handle cleaning needs.
7. Continue to identify the least hazardous products for use by the Motor Equipment Division.
8. Concentrate on educating City department heads about green alternatives when requesting purchases.
9. Examine Purchasing Department specifications to include earth-friendly options in the bid process.
10. Reduce harmful applications of road salt.

Smart Transit

Goal 1: Manage City transportation fleet in a manner that limits energy usage.

Goal 2: Maintain an efficient transportation network.

Goal 3: Align transportation plans and land use decisions to limit travel miles.

Objectives:

1. Improve fuel efficiency among vehicle types.
2. Expand use of alternative fuels as appropriate.
3. Establish fleet operating procedures that reduce energy consumption.
4. Reduce employee vehicle energy use.
5. Assure that City right-of-way is in good condition.
6. Support multi-modal transportation options throughout the City.
7. Develop a Community Bicycle Plan.
8. Expand access to transport vehicles.
9. Use energy efficient traffic control devices
10. Encourage street connectivity.
11. Encourage compact, mixed use development along arterial streets.
12. Support distribution of necessary goods and services within reasonable access by residents.
13. Emphasize road maintenance over road extension.

Smart Transit Objectives Continued...

14. Adjust off-street parking development standards.
15. Adjust on-street and off-street public parking fees to reflect market conditions.
16. Support access to buildings for all users regardless of physical abilities.

Smart Development

Goal 1: Encourage neighborhood revitalization.
Goal 2: Modify building regulations and standards.
Goal 3: Continue land reutilization.
Goal 4: Align land development standards.
Goal 5: Curb urban sprawl.
Objectives:

1. Preserve existing neighborhoods.
2. Create new housing in neighborhoods.
3. Improve permitting process.
4. Make building standards sustainable.
5. Educate stakeholder groups about green building.
6. Recapture Brownfields for reuse.
7. Promote land banking and infill development.
8. Establish energy standards for City assistance projects.
9. Promote efficient zoning and land use standards.
10. Improved parking and development standards.
11. Examine Joint Economic Development Districts (JEDD) policies.
12. Realign transportation policy.

Smart Conservation of Natural Resources

Goal 1: Preserve and improve the Urban Forest.
Goal 2: Preserve and conserve wetlands, and natural areas.
Goal 3: Preserve and improve water and air quality.
Goal 4: Conserve public green space.
Objectives:

1. Inform the public of the many benefits of trees and how they enhance the community's quality of life.
2. Adopt additional end uses for urban timber to stimulate the arts, employment, and economic opportunities.
3. Become a national leader in the area of Urban Forestry.
4. Suppress/slow urban sprawl.
5. Promote local food production on vacant City property where conditions are conducive.
6. Conserve wetlands and maintain flood plains.
7. Conserve soil from wind and water erosion.
8. Minimize the use of fertilizers and pesticides.
9. Promote air filtration and oxygenation.
10. Promote a riparian corridor protection ordinance for future implementation by the City of Akron.
11. Preserve public land.
12. Conserve expressway berms, slopes, and infields.

Smart Community Education and Promotion of Progress

Goal 1: Educate the government and community about strategies for reducing global warming and conserving natural resources.
Goal 2: Introduce a Greenprint Plan for Akron.
Goal 3: Promote progress towards the Greenprint for Akron goals and track targeted greenhouse gas reductions.
Objectives:

1. City becomes a model and acts as a catalyst for professional associations, businesses and industry to reduce global warming and conserve natural resources.
2. Educate City of Akron employees and other jurisdictions about reducing global warming pollution and conserving natural resources.
3. Reach Akron's youth about the importance of reducing global warming pollution.
4. Providing opportunities for the community to become involved in reaching The Greenprint for Akron goals.
5. Utilize ehsOnline internally to plan and share Greenprint Plan components.
6. Continue to coordinate Green Ribbon Panel/Greenprint Plan.

Smart Green Jobs

Goal 1: Increase the number of green jobs in Akron.
Objectives:

1. Increase jobs in green construction.
2. Increase jobs in alternative fuels.
3. Increase jobs in energy efficient products.
4. Increase jobs in recycling and waste management.

Greenprint Team Structure

Greenprint is a collaborative effort and requires a team structure. The team consists of the City Service Director, Keep Akron Beautiful, and 8 Smart Action Areas whose Key Point Persons also comprise a Task Force.

The Task Force comprised of the Key Point Persons of each action area, holds the purpose of creating City policies to support the guiding principles and developing a quantifiable decision-making matrix for evaluating action items associated with each guiding principle.

The Smart Action Areas hold the responsibility of brainstorming, and once approved, implementing action items and strategies that support the City's guiding principles, policies, mission, and vision.

The City Service Director reviews and approves the recommended action items from the Task Force.

Keep Akron Beautiful facilitates the review process and captures quantifiable results for a City report card.

Environmental Awareness & Education

Saving taxpayer dollars

Improving Air Quality & Public Health

Increase the Quality of Life

Build Local Economy – Create Jobs

Investment in Long-Term Livability

Inspire Community Engagement

Keep Akron Beautiful /Greenprint for Akron

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Our Mission:

The Greenprint for Akron creates an environmental partnership to foster a sustainable, eco-friendly community through education and leadership.

www.keepakronbeautiful.org/greenprintforakron

KEEP AKRON BEAUTIFUL

Greenprint for Akron Source Book

April 2009

2009 Greenprint Akron Source Book

Section II

Akron Makes the Connection

A Position of Leadership

In 1825, a city was born from a Canal. Its name was deemed "Akron" from the Greek word for "high place" and its growth has been tumultuous, with as many peaks and valleys to match its rolling topography. But long before 1825, its topography was well known. In fact, one of the first landmarks identified on the earliest maps of northeastern Ohio is of the eight-mile Portage Path which Native Americans traversed between the northward flowing Cuyahoga River and the southward flowing Tuscarawas River. And, far before the canal engineers of 1825, Native Americans knew the natural advantage of this area. Although, upon settlement of Ohio, nobody wanted to live in the area we now know as Akron. The land was undesirable for farming as it made it near impossible to till the land; full of steep slopes, sandstone, and thick forests. Farmers, instead, settled outside the area that would be Akron and left Akron mostly to the wild.

However, today, if you were to stand at Summit Lake, the highest point in the Ohio and Erie Canal, forty-four locks higher than Lake Erie, much of the view has changed and but some has stayed wild. In fact, some of what made it impossible to build on in 1825 continues to save its wild landscaping to this day. Today, Akron is sixty-two square miles of steep valleys and treed hillsides that, when in bloom, almost blot out the diverse community of hard-working residents, accomplished learning institutions, small business entrepreneurs, internationally recognized companies, and groundbreaking industries hidden beneath.

From Akron's birth, innovation and leadership have been the reigns that carried the city on a spirited path of growth. What has been Akron's historical connection to its environment while on this path, what opportunities has the environment provided Akron in the past, and what opportunities can it provide for Akron's future? We ask these questions to reflect on where we have been and, to reinforce the need for the path we choose to forge.

There is Always a Beginning

Natural Resource:
- Water
- Elevation
- Sandstone

Thales, the father of Greek philosophy, believed that the world originated from water. For Akron, it can be said that this is true as its world originated from a canal way. In 1825, the plat was recorded for the city of Akron with a grid street pattern shaped around the canal as the center of the town. Sandstone was quarried and used to build the locks and bridges of the canal along with several of the buildings that were to come. On the Ohio & Erie Canal, forty-four locks were required to adjust from the nine hundred sixty-four foot altitude of Summit Lake to the five hundred seventy-two foot level of Lake Erie with seventeen of those locks occurring in rapid succession along one and a half miles. In fact, forty percent of the elevation change would occur between locks 1 and 16 and this area would become Akron. The time it took to move through these locks provided an opportunity for business growth as boat riders used the layover to stock up on supplies or even stayed overnight in the city. Entrepreneurs used this opportunity to create small businesses that continued to develop the city. It was the beginning of Akron's identity as a Canal City.

A Cascade of Industrial Growth

In 1835, a new canal was forged that would connect Akron to New Castle, Pennsylvania and follow the course of the Mahoning River, crossing a valley rich in iron ore, and extending industry and supply routes into the eastern markets. Entrepreneurs then built the Cascade Race, a parallel waterway to the canal, to take advantage of the steep slope and hydraulic power it could provide. Using water from this parallel source, the city developed into a "mill city," creating industry and products that could then be placed on canal boats and moved along this inland transportation system to waiting markets east and west. Akron was in business and owed gratitude to three things: its natural gifts; the ingenuity of a few; and the fortitude of many.

In 1852, Akron had the approval of a Summit County bond to build a railroad. The canals were not unused but their limitations were recognized. Except, how do you build a railway system in a town of steep slopes? The city needed this new transportation system to remain viable in industry and used their knowledge of cutting canals to "cut" a railway through the city.

Natural Resource:
- Coal

By the 1860s, the mills were no longer relying on the hydropower of the Cascade Race. Instead, the new power source was steam complimented by the area's wealth of coal. This positioned the city for new identities, some that still follow it today.

Natural Resource:
- Clay
- Salt

Between the 1850s and early 1900s, the city of Akron was the site of an industry that built the infrastructure for most of the major cities of that time in the United States. Buried beneath the layers of sandstone and shale, the city and the surrounding area held beds of potters' clay. Initially this clay was used by local potteries to create utilitarian needs. However, this special type of clay would become hard and nonporous when subjected to high heat. This characteristic allowed for "salt glazing" which is accomplished by throwing salt into the kiln at the proper time. Luckily, the city of Akron had, and still has, a major salt deposit. The vapors from the salt-glazing produce a vitreous coating on the exposed surface of the clay-formed object. A few within the clay-working industry saw the additional opportunities this natural resource provided and began to diversify. Through this foresight, the Akron Sewer Pipe Company grew to be the largest factory for glazed vitrified clay pipe in the United States.

By 1870, rubber was being manufactured in Akron. Dr. Benjamin Franklin Goodrich was familiar with the area and, although no one is sure of his exact reasons for relocating his business from New York, he had surely noticed the abundance of coal, water, and transportation. Additionally, local entrepreneurs gathered funds together to support his move. The fledgling company held on through the Panic of 1873 and began to prosper. It was a

sign of times to come. B.F. Goodrich's success moved other tire manufacturers to Akron and the city was well on its way. After Goodrich came Diamond, then Goodyear, Firestone, General Tire, and several other manufacturers. The city was positioned at the genesis of one of the largest industries in the world and would earn itself world-wide recognition with its new identity: The Rubber Capital of the World.

Jumping into the Knowledge Pool

The city began an informal symbiotic partnership with the University of Akron in 1909 when the university set up the first academic rubber chemistry lab boosted by the city's new identity and workforce knowledge. This built the infrastructure of research that has remained with the university. By the Second World War, the university was contracted by the U.S. government with the development of synthetic rubber. And by 1967, the scope of research had broadened and the university had established a Department of Polymer Science. Today, the College of Polymer Science and Polymer Engineering and the Institute of Polymer Engineering can boast one of the largest concentrations of polymer expertise in the world.

A Hilltop View of Polymer Valley

Today, Akron has earned the reputation as the center of Northeast Ohio's Polymer Valley and more than four hundred polymer-related companies operate in the area. In April 2001, Newsweek magazine placed Akron as one of nine high tech havens and noted that the city was an important player in the information age and built its economy from hard work and innovation. This is very true; the city is redefining itself and rediscovering itself. However, first it had some lessons to learn.

The Hard Lessons

By the early 1900s, the main commodity shipped on the canal was coal and the locks fell into disrepair. Reconstruction efforts came to a screeching halt in March of 1913. A record snowfall was followed by a torrential downpour that lasted for days, locally flooding the Goodyear Powerhouse, washing out the Howard Street Bridge, effectively cutting off the north part of the city and extinguishing the boilers of the Northern Ohio Traction and Light power plant which put the city in darkness. Water threatened to engulf downtown and permission was given to dynamite seven locks. On March 24, 1913 commercial canal traffic came to an end in Akron.

With this end of an era, the canals were no longer of use to the industry in the area and the prosperity they had brought the city was soon forgotten. The state owned the land the Ohio & Erie Canal ran through and it would for more than one hundred years. During this time, the canal was made a dumping ground for trash, a breeding ground for mosquitoes, and parts of the canal were reclaimed by adjacent property owners or illegally filled.

Akron's industrial growth brought a surge of people to the area. Some were eager for the support of work the city provided and some were entrepreneurs who recognized that the city also supported innovation. Then, between 1910 and 1920, the population of the city skyrocketed from 69,067 to 208,435. This was more than a 300 percent increase in population in 10 years. No city of over 25,000 had ever experienced a growth like this and Akron was caught off guard.

The sewer system was overwhelmed. Sewage was being dumped by residents and the city into streams. Water pollution was rampant. Summit Lake had been the only source for water other than wells and cisterns and it was becoming polluted. The sewer system that had been built was the most inexpensive of its time and is used in many cities of the same age today; a combined sewer system. The combined system collects storm water sewage combined with sanitary sewage and is vulnerable to overflows during heavy rainfall events. This type of system releases the overflow into local water courses to prevent backup into the city streets, businesses, and homes. The city had to acquire new waterways and, in 1915 a water filtration plant went into operation in Portage County. In 1916, the city built a sewage disposal plant where the Little Cuyahoga empties into the Cuyahoga River.

These corrections to the water and sewer systems helped but those who have heard the stories know that pollution of Northeast Ohio's waterways continued to be a problem for several more decades. The entire region faced embarrassment when the Cuyahoga River caught fire in 1969. In fact, the combined sewer system still plagues Akron today. The degeneration of one of the greatest resources, the Cuyahoga River, was a national disgrace. Recently, the use of Joint Economic Development Districts (JEDD) has created opportunity to correct these infrastructure issues.

Sowing Patches of Green

During the boom of the early 1900s, the city was hardly focused on using any funds to preserve the natural environment. In 1925, a study was done in Summit County to evaluate any potential for public parks. The canal land was also looked at as a part of this study. However, nothing moved forward on this prospect. It would take another 40 years before the area would start to look at the potential of the canals again.

The year of 1921 marked the start of the Akron Metropolitan Park District and it began to acquire land for preservation. In 1925, the park district accepted its first donation of land at the corner of North Portage Path and Merriman Road. The dramatic population growth of the area had been watched with concern by some who thought, if they did not act immediately, Akron would lose all its land to development. From this date forward, the park district would seek to protect areas of natural beauty from encroaching urban development. This foresight helped to provide a quality of life for the area and, along with its bordering Cuyahoga Valley National Park, it shares national recognition. Today, the park district is know as the Summit County Metro Parks and boasts over 9,000 acres enjoyed by an annual attendance of 4 million visitors.

Throughout the process of Akron's urban renewal, the spirit of cooperation and community pride that developed was as valuable as the concept of preservation itself. Grassroots efforts brought patches of green into neglected neighborhoods and city officials learned the discipline required to seek and obtain federal funding. This concept of public and private partnerships has remained with the city of Akron and is part of the reason the city has been tapped three times, in 1981, 1995, and in 2008, as an All-American City for

its outstanding civic accomplishments.

Another milestone in preservation history started from seeds in 1964 when areas along the canal began to take notice of an opportunity to own the land again. The state would provide the land free of charge as long as it was used for public purposes. Today, eighteen miles of the Ohio– Erie Canal Towpath are a part of the Summit County Metro Parks.

The greening of Akron continued in 1981, with the establishment of Keep Akron Beautiful (KAB), a non-profit organization that succeeded, in partnership with the City of Akron, the Ohio Department of Natural Resources, and the private sector, in beautifying the city and encouraging citizens to take pride in Akron. Today, KAB's twenty-eight years of cooperation and direct connections with the community made them the natural choice to lead the conception and development of Greenprint for Akron.

Currently, Akron provides 131 city park sites that comprise over nine hundred fifty acres of recreation and positively impact the quality of life of its residents. The first designated city park in Akron was Neptune Park, recently restored as Alexander Park. Two more of these sites are the Canal Park Stadium and the Lock 3 Park, which brings us to the next step in Akron's identity evolution.

Akron's Environment is an Opportunity Once Again

It was no secret that the city struggled with maintaining its downtown as a destination through the 1970's and early 1980's. However, community leaders knew the canal of our past downtown could be the dynamic center of our future downtown and pull people in from miles away. The restoration of the canal and the development of the land along side it was a hidden opportunity just like the one that Simon Perkins foresaw in 1825. Canal Park Stadium opened to a sold out crowd who came to watch the Akron Aeros, an AA affiliate of the Cleveland Indians and, each season, approximately half a million people visit downtown Akron for the games. All year long, the park along Lock 3 is a site for entertainment with concerts, festivals, farmers' markets, holiday markets, and ice skating. This revitalization sparked a new way to look at downtown that continued with beautification efforts, increased art appreciation, creative reuse of historic buildings, and Brownfield restoration.

Additionally, with naming these public sites to reflect the history of Akron, the city is recognizing what made us who we are today and what will take us forward into what we want to be. It was our environment, initially seen as undesirable and unworkable, that helped make us a city and it was our natural resources that created opportunity after opportunity. So, we can recognize our environment once again as a resource, and the opportunities it may provide for its preservation. Indeed, preserving our environment for the future generations of Akron will preserve the prosperity of our city, our state, and our nation.

Akron's Chosen Future

President Theodore Roosevelt said, in his Arbor Day 1907 address to the children of the United States, "in your full manhood and womanhood you will want what nature once so bountifully supplied and man so thoughtlessly destroyed; and because of that want you will reproach us, not for what we have used, but for what we have wasted."

Natural Resource:

- The People of Akron

Our world is facing difficult times; economically, socially, and environmentally. However, this difficulty is a challenge and Akron has faced challenges from its beginning. In fact, history shows us that Akron has taken challenges and made them opportunities. As we see the effects of pollution on our planet, the intensifying of the greenhouse effect, and the prevalence of global warming, Akron will stand at the summit as it has before and cut the path for others to follow. This new path, as paths cut in the past, will also require our ingenuity, our fortitude, and perhaps our greatest natural resource, our people. The result will be a thriving city that values its quality of life and everything that truly means to our residents and our business.

Acknowledgements

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Books

Frances McGovern – *"Written on the Hills: The Making of the Akron Landscape"*

Jack Gieck – *"Early Akron's Industrial Valley"*

George W. Knepper – *"Akron: City at the Summit"*

Al Simpson – "Along the Towpath: A Journalist Rediscovers the Ohio & Erie Canal"

Videotape

Dave Lieberth and the Summit County Historical Society
"A History of Akron"

Section III

The Planning and Approach to Developing and Maintaining Greenprint

Creating a Sustainability Operating System

The Planning and Approach to Developing and Maintaining Greenprint

Since the mayor's announcement in August 2007 of the city's goal to create The Greenprint, Akron's plan for sustainability, Keep Akron Beautiful has been enthusiastically and diligently working with the city, the community, and private consulting experts to write a plan that could be implemented in an organized manner.

The process involved meetings, conference calls, and emails to determine the approaches that would best support The Greenprint vision. Keep Akron Beautiful, along with support from Affinity Consultants, Inc., held round table discussions on several components of the plan and managed the project for completion. The results from these discussions were presented at the monthly steering committee meetings of the Green Ribbon Panel.

Affinity Consultants, Inc., a local expert in sustainability planning in the public and private fields, was brought in as a consultant to the plan by Keep Akron Beautiful and provided direction for the development of the sustainability operating system.

This collaboration provided guidance for a methodology or action framework from which the plan can be implemented. However, this framework is a work-in-progress and should be adapted to best meet the needs of the city, its residents, and its businesses as we move forward. Just like sustainability, the process is never truly completed- it will continue to change, develop, and must be supported by a practical and organized approach.

The Greenprint needs the support, inclusion, and vision of everyone in the city to be successful. A diversity of opinions and expressions will provide the city with the most innovative ideas that will lead the city towards its cleaner, healthier, brighter future.

Greenprint Sustainability Mission and Vision

Mission Statement:
The Greenprint for Akron creates an environmental partnership to foster a sustainable, eco-friendly community through education and leadership.

Vision Statement:
The Greenprint for Akron sets a vision for a sustainable community that contributes to climate and environmental protection which will create opportunities for a healthier quality of life and economic growth.

Greenprint Decision-Making and Implementation

The Greenprint decision-making process involves the eight Action Areas, the Green Ribbon Panel, and the Service Director, with assistance from Keep Akron Beautiful. The roles of the eight Action Areas and Green Ribbon Panel members are better elaborated in the sections that follow, but the flow chart ***(figure A)*** simplifies the process.

Greenprint.ehsONLINE.net

Keep Akron Beautiful and the City of Akron utilize a secured web-based intranet site for the decision-making and implementation process ***(figure B).*** The site is not for public access. The site is an internal communication tool to promote the efficiency and effectiveness of Greenprint. Greenprint.ehsONLINE.net is a centralized location for the organization review, and retention of documents specific to Greenprint and its interests. Additionally, the site will host reference material and links, meeting minutes, and calendar events.

Each responsible party (Smart Area/Task Force) has a designated administration person in charge of accessing the site and loading documents pertinent to the process. Only these designated persons are given the security level of Administrator and can change or alter the site. Once posted, the documents are available for review by those of a general security level.

Greenprint Team Structure

The Greenprint team structure is comprised of eight Action Areas with key point persons and workgroups. The key point persons are part of the Task Force discussed later in this section.

Developed in November 2007, these Action Areas hold the responsibility of brainstorming action items and strategies that would support the city's guiding principles (also noted later in this section), policies, mission, and vision. These Action Areas are:

Smart Energy & Emissions
Key Point Person: Brad Beckert

Alternative Energy, Energy Efficiency, Green Rooftops, Green Building, EnergyStar, Advocating for Energy Audits

Smart Water & Wastewater Management
Key Point Person: Mike McGlinchy

Water Quality & Conservation, Improving Water and Wastewater Systems, Methane Recovery, Waste Sludge to Energy, Storm Water Pollution Prevention

Smart Materials & Solid Waste Management
Key Point Persons: Michael Pickett, Joe Asher, and Pat Ashbrook

Environmental Purchasing, Curbside Recycling, Reducing Consumption of Natural Resources, Composting, Preventing Non-Point Source Pollution

Smart Transit
Key Point Person: Jerry Egan

Mass/Rapid Transit, Walkable Urban Neighborhoods, Bicycle Plan & Towpath Trails, Carpooling, Conversion of Municipal Fleets, Efficient Traffic Control

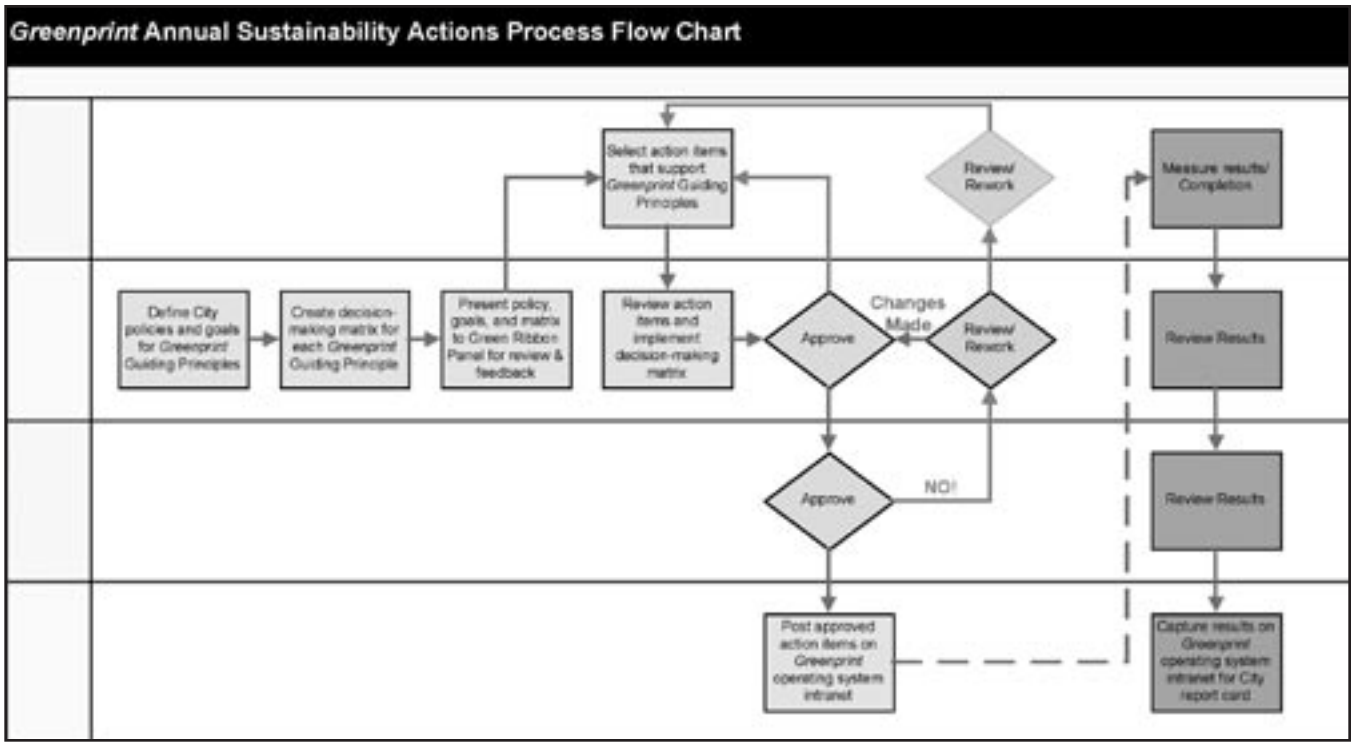


Figure A — *Greenprint Annual Sustainability Actions Process flow chart.*

Figure B — *Screen capture of* ***Greenprint.ehsOnline.net***

Smart Development
Key Point Person: Mark Albrecht

Neighborhood Revitalization, Brownfield Recapture, Reducing Urban Sprawl, Land Banking, Adaptive Reuse, Historical Preservation

Smart Conservation of Natural Resources
Key Point Persons: Bill Hahn and Jon Malish

Urban Forestry, Preserving Streams & Watershed, Maintaining and Expanding Open Spaces, Municipal Park System

Smart Community Education and Promotion of Progress
Key Point Person: Paula Davis

Educating Youth on Sustainable Practices, Greenprint Implementation and Tracking, Clearinghouse for Climate Change, Community Engagement, Promotion of School Recycling, Employee Training Incentives, Commercial and Industrial Support

Smart Green Jobs
Key Point Person: Adele Roth

Green Job Recruitment, Promotion of the Green Tech Incubator, Providing Green Skills locally

Greenprint Task Force

The Greenprint Task Force consists of the key point persons of each action area. The purpose of the Task Force is to create city policies which provide goals and a plan of action to carry through with the guiding principles. The Task Force is also responsible for reviewing the guiding principles every five years and making changes as necessary.

The Task Force will create a quantifiable decision making matrix for evaluating task associated with each guiding principle. This is vital to the decision making process and will assist the city in determining which tasks support the policies and goals. Once these tasks are reviewed and the matrix applied, the tasks can be reworked or sent to the City Service Director for additional review and decision making/approval.

Greenprint Guiding Principles

True sustainability requires an integrated approach of environmental preservation, social equity, and fiscal prudence. Akron has chosen guiding principles that support this integrated approach and will assist the city in developing sustainability. The guiding principles listed will be updated with the accepted sustainability plan and reviewed every five years.

Guiding Principle One: Akron will reduce its climate change impact.

Guiding Principle Two: Akron will implement efficient waste management and waste reduction.

Guiding Principle Three: Akron will promote environmental literacy.

Guiding Principle Four: Akron will institute environmentally, socially, and economically responsible purchasing.

Guiding Principle Five: Akron will seek outside funding sources and maintain fiscal prudence.

Guiding Principle Six: Akron will promote and seek the development of "green" jobs.

Guiding Principle Seven: Akron will encourage the concept of "new urbanism" and regional smart growth.

Guiding Principle One: Akron will reduce its climate change impact.

What is climate change?

So often, we hear the phrase "global warming" but this limits the view of human's impact on the Earth to the aspect of the Earth's temperature. The term that best conveys the variety of significant changes impacting the Earth is "climate change." This change can be temperature but is also precipitation, wind, etc., and is expected to last for an extended period of time. Some factors and processes in climate change are natural, such as changes to orbital patterns and oceanic circulation. However, others are human driven and can change the atmosphere's composition and land surface through burning fossils fuels, deforestation, reforestation, urbanization, and desertification, etc.

It cannot be denied that the term "global warming" has created much controversy. Global warming is a term that refers to the increase of the Earth's atmospheric temperature near its surface that affects climate patterns. The controversy arises when we try determining what is natural in global warming and what is occurring as a result of increased emissions of greenhouse gases from human activities. Although the definite link and long-term affect of these human driven activities cannot provide the scientific certainty that will persuade everyone, the Intergovernmental Panel on Climate Change (IPCC) believes the probability of human activities contributing to the current global warming we are experiencing is "very likely," or more than 90%.

What are some of the results of these climate change impacts that could affect the City of Akron?

With an increase in temperature, human health can be affected. Heat waves and heat extremes can affect sensitive areas of the population especially vulnerable: such as those with heart problems, asthma, the elderly, the very young, and the homeless. This effect, combined with areas that experience an increase in rainfall, could result in an extension of the tick and mosquito survival rate making the residents more susceptible to Lyme disease and West Nile Virus. Warming also increases smog, haze, and can lead to air quality problems. This can damage lung tissue and be especially harmful to those with existing lung conditions or asthma.

Average increases in temperature, combined with changes in rainfall amount and patterns and changes in climatic variability and extreme events, can impact local agriculture. These changes can increase drought conditions, create stresses on water availability, and impact the yield and quality of agriculture.

Additionally, any alterations in the temperature of the earth will impact our energy use and resources for heating and cooling.

The higher temperatures and increased evaporation could lower the levels of the Great Lakes and local rivers, impacting recreation, tourism, and shipping to the area. These same areas would also feel an impact with changes to bird migration, fish habitat, the Cuyahoga Valley National Park, the Metro parks of Summit County, and our local winter recreation, such as skiing. Furthermore, all of these changes would impact the quality of life of Akron and its surrounding areas.

This brief overview is just the hint of the possible impact of climate change on our corner of the world. However, it does not even begin to frame the consequences of the impacts that could affect the State of Ohio, the United States, and the planet as a whole.

The next steps:
The City of Akron has established a baseline indicator of its greenhouse gas emissions, a human driven factor that effects climate change. In 2008, City of Akron Engineers, Genny Hanna and Jeff VanNatten, were trained in how to gather the necessary governmental and community data and input it into the ICLEI CCP software to establish a baseline year for the City and the community's greenhouse gas (GHG) emissions. The year 2005 was selected as the baseline year for the GHG ICLEI survey because that was the year that provided the best available data. It took the two Engineers four months to collate the data received from the sources and input into the ICLEI software program to generate the report.

Paula Davis, President and CEO of Keep Akron Beautiful, and the Director of Greenprint Plan, has captured actions the City of Akron has already implemented (See Success Stories). Key successes will be quantified and, along with other community factors, input into the ICLEI CCP software to offer an estimated projection of emission reductions since 2005. Estimating GHG reductions of selected actions in the Plan will assist the city in understanding the implications of current policy and assist in reaching adopted GHG reduction targets. During this draft process, the city has committed to a three-step target reduction of the City of Akron's greenhouse gas levels from the 2005 baseline. The reductions are 5% by 2013, 10% by 2018, and achieve a 20% reduction by 2025.

Next, Akron will create policy to support this guiding principle and aid the Smart Action Areas with development, approval, and implementation of tasks that will reduce Akron's climate change impact.

	Equivalent Carbon Dioxide (eCO2) - Municipal Operations				Metric Tons
	Actual ICLEI Emissions Survey Results	Estimated Reductions	Goals		
	2005	2006 - 2009	2013	2018	2025
Buildings	42,407				
Vehicle Feet	11,472				
Employee Commute	2,499				
Streetlights	15,867				
Water/Sewage	47,214				
Waste					
Other	114				
Total	119,573		113,594	107,616	95,658
Change			-5%	-10%	-20%

	Equivalent Carbon Dioxide (eCO2) - Community-Wide*				Metric Tons
	Actual ICLEI Emissions Survey Results	Estimated Reductions	Goals		
	2005	2006 - 2009	2013	2018	2025
Residential	1,408,002				
Commercial	1,219,457				
Industrial	708,091				
Transportation	873,454				
Waste	120,960				
Other	45,961				
Total	4,375,926		4,157,130	3,938,333	3,500,741
Change			-5%	-10%	-20%

Guiding Principle Two: Akron will implement efficient waste management and waste reduction.

What is waste?
In the natural world, waste is what an organism returns to the environment in a form that is recycled by other living organisms. However, humans create additional wastes that overload and incapacitate this natural recycling process. Therefore, these wastes must be managed in order to reduce their impact on the health and aesthetic of the environment. Waste can come in the form of municipal waste, hazardous waste, and wastewater.

Landfills are the most common method of waste disposal for municipal waste. These, if mismanaged, can have hazardous health and environmental implications. As a result of these hazards, new landfills can be difficult to locate or be extremely expensive to a community. Additionally, landfill location can negatively impact neighboring business growth and home values. Moreover, efficiently managing the materials used can lead to less use and less waste, therefore conserving the material and reducing the impact of it as a waste. The goal then should be the reduction of waste through efficient waste management, reuse of waste, and recycling of waste.

Reducing and reusing are the most preferable methods. Not only is it preventative, it can also be cost effective. Reducing the generation of waste can provide the opportunity to review processes and find areas of inefficiency. The reuse of waste is a way to also reduce waste by using the waste in a new way. The US EPA states that 24% of municipal solid waste can be attributed to yard trimmings and food scraps. An example of the reuse of this waste could be composting which would reduce the need to purchase landscaping compost from outside sources.

Recycling is another option in waste reduction. The advantage of recycling is that is does reduce the amount of raw material required, the toxics produced, and the need for landfills. The disadvantage is that it can be sometimes be inefficient and require as much or more energy than utilizing virgin material. Therefore, reducing and reusing are the preferred options.

What are some of the results of waste reduction that could affect the City of Akron?
Reducing and reusing waste, and to some degree recycling, would reduce greenhouse gas emissions, which contribute to global warming, and impact climate change. Additionally, waste reduction conserves raw materials and reduces the air and water pollution associated with the gathering and processing of the raw materials.

The US EPA notes that recycling, even though it does use energy, is still a better alternative to the energy needed to gather and process the raw materials. In fact, recycling just 1 ton of aluminum cans, rather than throwing them away, conserves more than 207 million BTUs, the equivalent of 36 barrels of oil or 1,655 gallons of gasoline.

Moreover, as mentioned, landfills are an expense to the community. Not only are there the indirect expenses mentioned but there are also direct operational expenses. These expenses can be passed on to the communities who use the landfills as increased rates. Therefore, less landfill use can mean less landfill operations expense passed on to city residents.

The next steps:
The City of Akron will capture the quantitative affect of its current household curbside recycling initiative and success stories. These results will indicate the disposal trend.

Next, Akron will create policy to support this guiding principle and aid the Action Areas with development, approval, and implementation of tasks that will maintain the city's efficient system of waste management and waste reduction.

Guiding Principle Three: Akron will promote environmental literacy.

What is environmental literacy?
Environmental literacy is the educated understanding of the natural world. This includes the relationship between the living and the non-living environment and the ability to understand problems that involve scientific evidence, non-conclusive results, economic issues, and aesthetic and ethical considerations. Understanding the needs and problems regarding issues with the environment will promote its inclusion in the every day actions and thoughts of everyone involved. It creates a working knowledge of environmental issues and connects decision making with those issues, at the citizens' level and at the city level. Just like learning to read, the fundamentals, once put in place, can stay with a person for a lifetime.

The city will additionally take environmental literacy a step further in engaging the community. This engagement will also be a tool in the decision-making process/guiding principle matrix. The engagement will include interviews and surveys of Akron residents and Akron-area businesses. These interviews and surveys will gauge perceptions of and receptiveness to proposed Greenprint Plan ideas and processes among both residents and the business community in order to aid in plan prioritization. This will allow city officials to learn what the community's response will be to certain Greenprint programs and which programs the community emotionally connects with and believes will better their quality of life.

This is an essential principle in the Greenprint vision. The engagement will additionally set program benchmarks in awareness, attitudes, behavior and knowledge within the community for future tracking and program adjustments.

What are some of the results of environmental literacy that could affect the City of Akron?
The promotion of environmental literacy will create a symbiotic relationship that will amplify the success of the overall Greenprint sustainability Plan and the goals of the city. It will increase community cooperation, engage the community in the process and goal development, and foster an environment of ingenuity that initiates and welcomes new ideas and concepts.

The next steps:
The city will develop and implement survey research of Akron's residents and businesses. The social outreach will provide conclusions that are reliable, and objective.

Next, Akron will create policy to support this guiding principle and aid the Smart Action Areas with development, approval, and implementation of tasks that will promote environmental literacy.

Guiding Principle Four: Akron will institute environmentally, socially, and economically responsible purchasing.

What is environmentally, socially, and economically responsible purchasing?
This type of purchasing is making an educated and conscious decision to buy products with considerations for environmental, social, and economic impacts. This can entail a large process from understanding the life cycle of the product, which includes the energy used to create it and dispose of it, to encouraging purchases from companies that promote safety in the workplace, respect diversity, protect the dignity of human life, ensure financial transparency, and practice responsible financial behavior throughout its supply chain.

What are some of the results of environmentally, socially, and economically responsible purchasing that could affect the City of Akron?
The ability to extend Akron's positive impact beyond its city boundaries is assisted by this guiding principle. Furthermore, reviewing purchasing processes and understanding the implications of the current purchasing compared to responsible purchasing can open new networks and partnerships for the city. Existing purchasing partners can be encouraged to develop new policy that promotes corporate industry changes. Additionally, fresh innovative partnerships can create opportunities for new resources for the city by generating strengthened relationships with regulatory agencies, the media, and the sustainable business innovators.

The next steps:
The city will continue to review green purchasing processes and vendors to create a benchmark. Next, Akron will create policy to support this guiding principle and aid the Smart Action Areas with development, approval, and implementation of tasks that will promote environmentally, socially, and economically responsible purchasing.

Guiding Principle Five: Akron will seek outside funding sources and maintain fiscal prudence.

What is fiscal prudence?

Fiscal prudence involves the governmental maintenance of responsible spending and taxing to stabilize its economic development. It involves cautious and provisional measures that provide an end value.

What are some of the results of fiscal prudence that could affect the City of Akron?

The role of city government is to provide basic municipal services at the lowest cost possible. Akron's goal is to maintain this same role while cohesively implementing sustainable actions. However, as an example, existing antiquated service rate structures might not comply with this concept and will need to be reviewed. Therefore, solutions must go beyond the norm and creatively find the funding to maintain basic services. The city government must be very careful to identify between basic necessary services, short term solutions, and the long term vision of sustainability. Not everything that provides an immediate cost benefit or avoids a negative fiscal impact is a long term benefit to the community.

Opportunities in outside funding sources, including state and federal earmarked funds, will be actively researched and sought. This will encourage accountability, discipline, commitment, and completion of projects. Fiscal transparency and funding projects that are encouraged by community research will additionally provide a strong backbone to this guiding principle.

The next steps:

Akron will research state and federal policy initiatives that converge with the city's guiding principles and seek earmarked funds for the creating of such policies. Next, Akron will create policy to support this guiding principle and aid the Smart Action Areas with development, approval, and implementation of tasks that will promote fiscal prudence.

Guiding Principle Six: Akron will promote and seek the development of "green" jobs.

What are "green" jobs?

"Green" jobs are jobs at companies that work to reduce human impact on the environment or are jobs at environmentally-friendly companies which are socially responsible and do their best to improve the environment, rather than harming it. These jobs are in fields such as renewable industry, sustainable agriculture, and green building.

The Environmental Business Journal notes that, in the United States in 2005, the green industry was worth about $265 billion and employed 1.6 million people in an estimated 118,000 jobs. It is estimated to be growing at a rate of approximately 5% annually.

What are some of the results of "green" job promotion and development that could affect the City of Akron?

Akron has always been on the cusp of innovation with its history in the rubber industry and its current polymer industry. The development of the city's Greenprint provides opportunity for the promotion of the city as a "green" friendly environment for new green industries. The movement of green industries into the area through the Akron Global Business Accelerator will provide job creation and retain green job seekers that would otherwise go elsewhere for opportunities. The influx of new green technological industry will also create competition and ingenuity among existing local industries.

Local "green" jobs would help to revitalize the city's strong middle class, provide pathways out of poverty, encourage new skills (and some new thinking about old skills), and strengthen the community, besides protecting the health of the planet.

The next steps:

By working with the staff of the Akron Global Business Accelerator city economic development professionals will learn of possible opportunities for development of green jobs within the current industry structure. They can also address the training and educational needs of the emerging businesses.

Next, Akron will create policy to support this guiding principle and aid the Smart Action Areas with development, approval, and implementation of tasks that will promote and seek the development of "green" jobs.

Guiding Principle Seven: Akron will encourage the concept of "new urbanism" and regional smart growth.

What are "new urbanism" and "smart growth?"

"New urbanism" is a movement from within a city that identifies the relationship between development patterns and community quality of life. It incorporates policies that affect housing, transportation, economic development, and the preservation of environmental quality. This association creates communities that foster the most desirable characteristics of human habitation: neighborliness; environmental sustainability; economic efficiency and prosperity; historic preservation; participation in civic processes; and human health. The ultimate goal of new urbanism is to preserve cities by reconfiguring them into livable neighborhoods and diverse districts that support and restore urban centers.

Smart growth identifies the regional environmental impacts of urban sprawl and develops planning initiatives, policies, and incentives that confine urban sprawl within its current footprint. This requires cross-collaboration between local and state entities, real estate interests, environmental groups, and developers.

New urbanism and smart growth, while different in origin, do share a common result: the reduction of urban sprawl and its impacts. The decentralization of cities not only affects the cities by encouraging people and wealth to move away, but it also affects the regional area on many levels. Sprawl, through low-density residential developments, reduces the natural landscape, infringes on farm land, raises public service costs, and creates traffic congestion.

The concepts of new urbanism and smart growth can both utilize the same techniques, such as, compact development, mixing of land uses (e.g., homes, offices, and shops), transit accessibility,

better pedestrian and bicycle amenities, reduced impervious surfaces, improved water detention, and safeguarding of environmentally sensitive areas.

While these tactics strengthen the infrastructure and services of a city as well as the region, an important part of "new urbanism" is community and stakeholder collaboration within the city. By assessing and responding to these needs and values, a city can create development policy and innovative planning strategies that are defined by the people who live and work within its boundaries.

How could this engagement in new urbanism and smart growth affect Akron?

New urbanism falls in line with city goals on many levels. This engagement can retain residents, create social community connections, develop a stronger tax base, and encourage infill housing and job development – all leading to an economically sustainable city. It offers opportunities in cross-collaboration with stakeholders and the community to resolve development issues, create planning and investment guidelines, gain support leading to innovative strategies and ultimately define a strengthened cultural identity for the city.

Furthermore, a city that incorporates these changes has an opportunity to better public health. A 2006 study prepared for the US Green Building Council (USGBC), Congress for the New Urbanism (CNU), the Natural Resources Defense Council (NRDC) and the participants in the Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) Core Committee focused on understanding the impact the built environment and development changes has on public health. These improvements include links between air quality from vehicle emissions and respiratory and cardiovascular health, roadway designs that can decrease traffic accidents, walking and biking paths and increased public transit use that can lead to improved physical fitness, and how the these changes can create healthy social networks for the community.

Additionally, appealing to quality of life standards and creating a city center where people choose to live and companies choose to invest is one of the most effective ways to achieve environmental sustainability by reducing land consumption and the greenhouse gases produced by extraneous transit. As a result, community studies have shown tangible environmental improvements. In 2000, a study of New Jersey compact development determined it would produce 40 percent less water pollution than a more widely distributed development. Moreover, in 2005 a Seattle study demonstrated that residents of an area where land use was mixed, and streets better connected, traveled 26 percent fewer miles than residents of an area that didn't have these attributes.

There are three aspects of sustainability: environmental progress; economic prosperity; and community concerns. New urbanism supports all of these means, and, just like sustainability, is a long-term approach seeking an integrated solution to a complex problem.

The next steps:

It is important early in the process to engage the community and stakeholders in the collaborative effort. Therefore, the survey research suggested under Guiding Principle Three is also imperative to the success of this guiding principle. Additionally, the City will continue its regional collaborations regarding Joint Economic Development Districts and transportation policy review while seeking new areas of collaboration, both public and private. Together with the current transit and biking accessibility projects and downtown beautification, these initiatives can help make Akron's vision for new urbanism tangible.

Further policy that encourages mixed-use development, walkable neighborhoods with accessible services and goods, Brownfield revitalization, compact building, a range of quality housing opportunities and choices, preservation of natural features and historic buildings, and outdoor art and neighborhood gardens can all be utilized to advance this vision.

Next, Akron will create policy to support this guiding principle and aid the Smart Action Areas with development, approval, and implementation of tasks that will promote this concept of new urbanism.

Section IV

Smart Success Stories

Smart Community Education & Promotion of Progress

Smart Conservation of Natural Resources

Smart Development

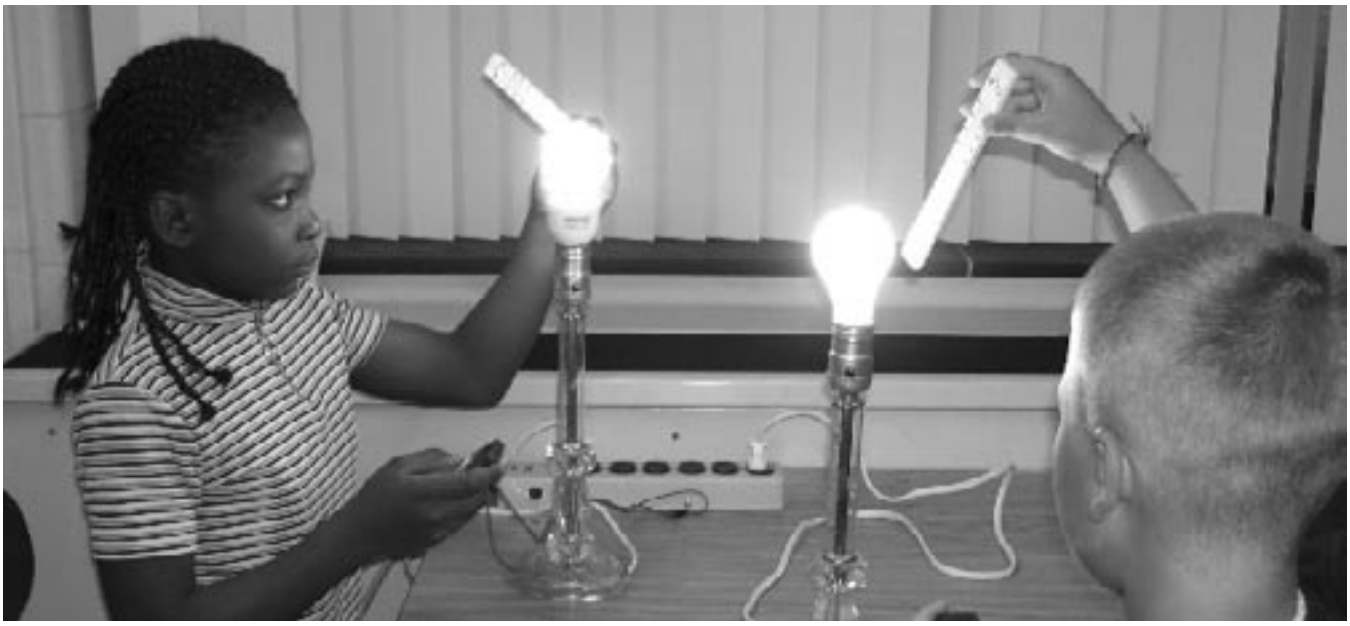
Smart Energy & Emissions

Smart Green Jobs

Smart Materials & Solid Waste Management

Smart Transit

Smart Water & Wastewater Management



Smart Community Education & Promotion of Progress

- Keep Akron Beautiful has had an Education Specialist in the classrooms of Akron's public, private and charter schools, K-12, for 27 years teaching about responsible solid waste management. The current Education Specialist reached 5,423 Akron students through 247 forty-minute classroom presentations during the 2007/08 school year. Educators chose from 10 presentations offered in the curriculum Enviro-Lessons to Energize Your Classroom, about: groundwater, land filling, non-point source pollution, litter prevention, reducing and reusing solid waste, alternatives to household hazardous waste, recycling and graffiti prevention. As of the spring 2008 semester, the agency now offers hands-on lessons about energy efficiency.

- Keep Akron Beautiful and the Engineering Department of the City of Akron join forces to celebrate Arbor Day, reaching out to 55 fourth grade classrooms in 2008. Keep Akron Beautiful offers classroom PowerPoint shows about the county's significant trees, a Jeopardy-style game reinforcing the importance of trees, and a classroom competition for the best ten-word slogan related to a tree theme. The three best slogans win a donated tree, planted on the school campuses the last Friday of April. Over 2,500 fourth graders in the city receive a seedling to take home and nurture.

- Keep Akron Beautiful led a community coalition of government and civic organizations to be the first runner-up in 2002, and the population category winner in 2003, of the national America In Bloom competition. This is notable for the 8 categories of judging where the local committee had to showcase its strong programming in the areas of: Turf & Groundcovers, Urban Forestry, Community Involvement, Heritage Preservation, Floral Displays, Landscaped Areas, Tidiness, and Environmental Awareness.

- The President & CEO of Keep Akron Beautiful, Paula Davis, was voted by her peers to represent the Keep America Beautiful affiliates on the national Board of Directors of Keep America Beautiful, Inc. The national nonprofit organization was interested in the local agency's role in assisting the city in writing their Greenprint for Akron. She has since been appointed to the Board's Executive Committee.

- Keep Akron Beautiful (KAB) was awarded, in partnership with the Akron Public Schools and the Ohio Energy Project (OEP), a 2008/09 Ohio Environmental Education Fund (OEEF) grant for $50,000. This grant is targeted for sixth grade science teachers and their students. The grant provides a series of 7 interactive energy efficiency lessons from the OEP curriculum, Be E3 Smart, to 2,000 public school students. Each child trained receives a Home Energy Efficiency Kit to start their family on saving energy and natural resources. Kits have also been given to the Green Ribbon Panel, all KAB Board members and will be given to elected members of the Akron Public School Board during a Board meeting presentation. Estimated energy savings, if all households participate, would be 605,400 kilowatt hours, or a monetary savings of $37,800 by June 2010.

- The Mayor's office of the City of Akron compiles a full-color calendar that is sent to approximately 109,088 households annually to give them important recreation, sanitation, community and council event dates and contact information. In 2008 and 2009 the popular wall calendar went eco-friendly with many tips for how easy it is to be green!

- Mayor Don Plusquellic has signed the U.S. Conference of Mayors Climate Protection Agreement, which was unanimously endorsed in 2005 when he presided over the national mayor's organization. In June 2007, the Mayor joined over 550 mayors committed to reduce greenhouse gas emissions in their cities by 2012 to at least 7% below 1990 levels.

- At a Mayor's press on August 10, 2007, Mayor Plusquellic assigned the task of writing a "green print" for how Akron can save energy, limit waste and make new buildings smarter to Keep Akron Beautiful. A Green Ribbon Panel of city experts was appointed, a mission and vision was created for the sustainability plan and seven smart committees formed to formulate goals and objectives to impact emissions and reduce the use of finite natural resources-saving the tax- payers money!

- The City of Akron decided to become an ICLEI (International Council for Local Environmental Initiatives), Local Governments for Sustainability, member in March 2008 to use their programs, tools, software and technical expertise to quantify their greenhouse gas emissions for a baseline year of 2005. City Council approved the ICLEI membership and expressed support for creation of a Greenprint Plan for Akron. The President & CEO of Keep Akron Beautiful attended the 2008 ICLEI spring conference to learn more about setting attainable reduction goals and to network with the over 750 cities, towns, counties, and associations worldwide also working through the Cities for Climate Change Campaign consisting of five milestones.

- As gas prices went up and energy costs climbed in the summer of 2008, community members wanted to know more about how the City of Akron is working towards sustainability. Keep Akron Beautiful presented 15 Greenprint Plan updates to 1,180 citizens since assuming the task of facilitating the community conversation as of 11/21/08.

- The Community Health Assessment and Health Promotion Division (CHAHP), and the Air Quality Division of the Akron Health Department are developing tips and literature to educate City of Akron employees and residents on how to make Akron a more eco-healthy community. These tips and fact sheets will be distributed as email tips to City employees, in Health Department newsletters, and other Health Department promotional publications. Fact sheets and other information on how residents can positively impact the environment are also available on the Air Quality website, www.ci.akron.oh.us/health04, click on Divisions and then Air Quality.

- Akron's Health Department's Air Quality Division distributes to over 1,000 regulated businesses/industries, elected officials and interested individuals the quarterly newsletter, The Air You Breathe, covering air quality topics such as open burning, indoor air quality, and recognizing area companies making positive air quality changes. An Education Specialist is available to train educators, as well as the public at environmental fairs about our region's air quality. For more information call 330.375.2480 ext. 3393

- Northeast Ohio's air was cleaner than expected in the summer of 2008. The Akron Regional Air Quality Management District reported that there were 11 days when the air in the region exceeded the new federal Clean Air Act limit on ozone of 75 parts per billion, versus last year when the parts per billion were not as strict, 13 days of violations. Eight counties, including Summit, are part of these air quality advisory days. One good reason for why there was less ozone would be that the vehicle miles traveled (VMT) in Northeast Ohio were down this past summer season.

- The City of Akron endorsed the Sierra Club, Portage Trail Group's first LightsOut campaign on Earth Day 2008 to raise awareness about reducing the use of non-essential lighting. Also launched in April, 2008, the City then supported the Akron Metro RTA's Dump the Pump effort to get Akronites out of their cars and onto buses to go to school, work and Lock 3 events downtown. The City and Summit County are joining the Sierra Club again in 2009 to promote the LightsOut Ohio campaign designed in its second year to promote turning off un-necessary lights during the day in schools, homes and businesses.

- Using life expectancy, economic, demographic and pollution data from 51 metropolitan areas, an epidemiologist at Brigham Young University, Arden Pope, reported in the New England Journal of Medicine (January 2009), that when fine-particle air pollution dropped by 10 micrograms per cubic meter, life expectancy rose by 31 weeks. Areas such as Akron, Ohio and Philadelphia, PA. showed that kind of drop in air pollution. The findings show there has been a real dividend from the efforts since the 1970's to improve air quality, according to Arden Pope.

- Frank Makunas, Akron Regional Air Quality Management District and a member of the Green Ribbon Panel, can send staff to show the 41 minute DVD "Air-The Search for One Clean Breath" to civic organizations or into secondary classrooms to help educate citizens about climate change followed by a group discussion in the spring of 2009.

- The State of Ohio plans to ask U.S. EPA to officially recognize that air quality in the Columbus and Cleveland/Akron areas meet the 1997 federal ozone standard. Air Quality data from 2006-2008 show that both metropolitan areas are meeting the 1997 national ozone standard. When asking for re-designation, states are required to demonstrate that the metropolitan area will be able to maintain compliance with the ozone standard for 10 years. Each area can achieve this because of current air pollution controls to limit ozone-causing emissions. The air quality in the Akron regional area continues to improve. Tighter standards set in 2008 mean that we will continue to look for ways to reduce ozone forming pollutants for many years to come.

- Keep Akron Beautiful is sending the Flowerscape Director, Polly Kaczmarek, to The Cleveland Botanical Gardens in February to the Sustainability Symposium 2009: In Your Own Backyard. She hopes to bring back ideas for designing Akron's Flowerscapes and Adopt-A-Sites in harmony with Northeast Ohio's climate and conditions.

- Akron was one of two locations in the state for the Environment Akron Research Policy Center press conferences to present their January 2009 report, "Clean Energy, Bright Future", and ask for the new presidential administration to earmark economic stimulus projects for green infrastructure to create new jobs in Ohio. The January news conference was timely since Mayor Don Plusquellic had been asked numerous times to Washington D.C. to work with the Obama transition team to write the legislation to fund shovel –ready projects in cities nation-wide.

- Keep Akron Beautiful will have a booth at the Akron Public Schools February Science & Technology EXPO 2009 to educate students, teachers and parents on the new Be E3 take-home energy efficiency kits that are being given to all 6th graders in the system after studying 7 lessons about how to reduce their energy consumption.

- The 2008 and the 2009 January issues of the Akron Life and Leisure Magazine, have been devoted to the "greening" of the City of Akron. The Green Issue for 2009 focused on what Akron's carbon footprint is all about, featuring city success stories and Be E3 Smart OEEF grant for energy efficiency education in Akron's sixth grade classrooms.

- The student group Environmental Akron and the Blue, Gold & Green Committee of the University of Akron are bringing Recycle Mania to campus January through March 28, 2009 for the first time. The 10-week competition is designed to encourage recycling awareness among students, faculty, staff and administration. For additional information go to www.enviroakron.org

Smart Conservation of Natural Resources

- The City's Engineering Bureau is spearheading a city wide tree inventory. A database has been created to gather the necessary information. This information will be available to all city departments utilizing the City's GIS to create work orders and track the maintenance history of a tree. The city has devoted the technical expertise and the manpower to use i-tree, a free software package developed by the U.S. Forest Service and Davey Tree, to maintain the urban forest in 2009.

- Forest to Furnishings is a City of Akron initiative to utilize urban wood waste for more productive use than land-filling, firewood or mulch. The concept intends to boost the local economy by encouraging new end users such as artisans and craftsmen. In 2008, the city sold its first two lots of logs to area firms that make architectural moldings, and hardwood flooring. The proceeds from the sale of the urban wood waste program will be used for reforestation.

- The Public Utilities Bureau planted tens of thousands of tree seedlings on vacant Geauga County Watershed property and conservation easements which have been purchased to prevent development of environmentally sensitive areas near the Upper Cuyahoga River. The City has also given hundreds of acres of land to the Trust for Public Land to protect green space into perpetuity. Akron has been recognized for its stewardship of the 207 acre watershed which is a habitat for beaver, mink, deer, raccoons, coyotes, fox, geese, turkeys and American Bald Eagles.

- In 2003, a broad coalition of community groups worked with Keep Akron Beautiful and the Engineering Bureau to write a first place winning American In Bloom national award application in their population category. The city was judged by eight criteria for proven excellence: Floral Displays, Environmental Awareness, Landscaped Areas, Tidiness, Urban Forestry, Heritage Preservation, Turf and Groundcovers and Community Involvement. The city arborist, Bill Hahn, now serves as a judge of the national competition.

- City Arborist and the Public Works Bureau, has been instrumental in beautifying the expressway system since the late '90s by planting tens of thousands of plants, shrubs and ground cover to save taxpayers money on mowing and reduce the climate effects of fuel emissions associated with the hazardous job of mowing expressway medians, berms and ramps. Akron piloted a program to create planted sound barriers instead of sound walls. Mayor Plusquellic and the Ohio Department of Transportation, District 4, announced in the summer of 2008 that the practice of mowing the grass along Akron's expressway system will end. In an effort to eliminate the mower fuel emissions, keep employees safe, cut the need for tractor-mowers and beautify the expressways, a design plan to utilize maintenance–free mass plants, grasses and groundcover is being developed as part of the city's future maintenance contracts with ODOT.

- In 2008, Flowerscape crew members had to wait until October to pull out the spent plant material in the Flowerscapes sites due to the growing season extending a few days each year. They used kraft paper bags to transport the yard waste to the Akron Compost Facility to be used in making Earth Pro soil amendment for the next year's growing-season. This extra effort kept 9.5 tons of plant waste out of the landfill. This practice will be repeated in subsequent growing seasons.

- Keep Akron Beautiful has managed a litter and illegal dump collection program on the expressways, roadways and in city parks since the agency started in 1981. Crew supervisors take out court referred community service-sentenced offenders to serve as the crew members. In 2008, these crews removed 42 tons of litter, 81 tons of illegal dumping, 119 illegally scraped tires and recycled 13,700 pounds of mixed recyclables. Beginning in the fall of 2008, crews started using 50% reprocessed and biodegradable polybags to collect the waste and source separate the recyclables.

- Keep Akron Beautiful used approximately 90 yards of bulk recycled wastewater sludge, Earth Pro, on its public Flowerscapes sites in 2008, to a depth of six inches to condition the soil. Volunteers used 1.95 tons of bagged compost on their neighborhood Adopt-A-Site gardens

- Speaking of the promotion of local food production and its use, the Lock 3 Winter Farmers Market drew 2,316 people downtown the weekend of December 13-14, 2008. This is the biggest crowd to take advantage of the 22 farm vendors who attended to sell their produce!

- Keep Akron Beautiful, an affiliate of Keep America Beautiful, Inc., has been planting professional caliber urban flower displays for 27 years. There are over 44 annual beds downtown and at tourist attractions. The beautification program is carried into Akron's neighborhoods through the volunteer gardening program called Adopt-A-Site. There are approximately 80 active sites on public land monitored by the nonprofit agency and allowed supervised city water use from hydrants.

- The City of Akron sent Jerry Egan as a representative to the annual Northeast Ohio Food Congress, November 7 - 8, 2008. The Food Congress brings together urban and rural stakeholders from non-profits, governments and businesses to identify opportunities for food system development, to share best practices and set goals for the local food economy. He attends the Greater Akron Food Policy Coalition meetings.

- The last Friday of April is celebrated in all fourth grade classrooms of public, private and charter, schools as Arbor Day. Keep Akron Beautiful, working with the city Engineering Department, celebrate the tree conservation holiday by offering classroom presentations to all teachers, distributing up to 3,000 seedlings so each student can take home, nurture and plat a tree. Three tree planting ceremonies for the fourth grade class winners of the annual Arbor Day slogan contest commemorate the day.

- The City of Akron has created a Community Gardening Task Force that is working to offer up to 10 city-owned locations for citizens to plant vegetable gardens for their own use during the 2009 growing-season. There is a similar initiative for community gardens in Summit County led by the O.S.U. Cooperative Extension experts

- On August 8, 2008, Mayor Don Plusquellic and Summit County Executive Russ Pry jointly announced that the building divisions of the city and county will be merging as of February, 2009. There are personnel and logistical issues that are being worked out over the next few months. It had already been decided that the city's Green Ribbon Panel and the county's Green Team would merge their Green Building committees to work together to define the sustainability goals for the residential, commercial and industrial building codes..

Smart Development

Brownfields

Brownfields in Ohio are defined as abandoned, idled or under-used industrial and commercial property where expansion or redevelopment is complicated by known or potential releases of hazardous substances and/or petroleum. Akron's active brownfield program has been directly involved in 25 projects since 1984 resulting in 17 project cleanups. Public expenditure for cleanup contribution has been approximately $18 million, leveraging in over $140 million in private investments.

- The AES/Building 41 Project completed in 1995 was the first major environmental brownfield cleanup and adaptive reuse project completed by the City and resulted in an investment of over $35 million creating over 1000 jobs.

- The City has obtained over ten grants totaling over $16 million in Clean Ohio and USEPA grants since 2003 to assist with brownfield cleanup. With local contribution over $22 million has been spent on brownfield cleanup and restoration. The Goodyear Project has already received 3 grants totaling $4.2 million.

- As a result of a $3 million Clean Ohio grant in 2004, the City recently obtained a Covenant Not to Sue for the Beech Street Power Plant property, adjacent to the Ohio and Erie Canal Heritage Corridor.

- Middlebury Marketplace was developed on an 8-acre brownfield parcel at the intersection of Exchange and Arlington Streets. This 65,000 square foot shopping plaza represented the first new, retail shopping center in the heart of the city in over 40 years.

- A $2.8 million Clean Ohio grant was instrumental in this redevelopment project.The City of Akron received two $200,000 USEPA City-wide brownfield assessment grants. These competitive grant awards will enable the City to address specific brownfield sites as part of The Goodyear Tire and Rubber Company redevelopment project, as well other brownfield sites throughout the City.

- The City and the Summit County Port Authority partnered to obtain a $3 million Clean Ohio grant to remediate the Lockheed Martin Airdock, formerly the Goodyear Airdock, to facilitate the development of the High Altitude Airship project. (HAA)

Sustainable Development

Sustainable Development Initiatives Reflect the practices of efficient land uses, improved transportation practices, sustainable urban design and pedestrian/walkable communities. Smart Growth practices emphasize higher density development, infill development, reinvestment in inner city and urban areas, mixed-income walkable communities, affordable housing, use of existing infrastructure, historic preservation and bicycle/pedestrian paths.

New Sustainable Neighborhood Developments:

Northside – A new 28 unit condo mid-rise overlooking the Little Cuyahoga Valley and Cascade Valley Park. Its location anchors the north end of Downtown Akron and creates opportunities for its residents to walk to work, restaurants, and recreation. New walk-up townhouses along N. Howard St. are the next phase of this in-town development.

Spicer Village Townhomes – located in the University Park Alliance (UPA) District, the first phase representing a new 25 unit condo development is under construction. This complex is located immediately adjacent to the University of Akron and close to Summa Hospital, as well as Downtown, thus facilitating a walkable community. Future phases will add an additional 60 units. This development will spur additional housing reinvestment in the UPA district.

Cascade Village – Located in the Little Cuyahoga Valley, less than one-half mile from Downtown, this mixed single-family and townhome development has created a new walkable community. With 279 units, including single-family homes and townhomes, this collaborative project between the developer Community Builders, the City of Akron and Akron Metropolitan Housing Authority has won multiple awards and changed the landscape of urban living in Akron.

Edgewood Village – Located in center city Akron immediately adjacent to the Akron Zoo. This 221 unit complex including single-family homes and townhomes has reinvented this near southwest neighborhood and is transforming the adjacent business districts and neighborhood as well.

Historic Preservation

Historic Preservation: The City established in 2003 its own historic preservation commission, Urban Design and Historic Preservation Commission and was certified by the Ohio Historic Preservation Office and National Park Service as a Local Certified government, enabling local review of historic tax credit projects. Over $100 million has been expended in the past 10 years on adaptive reuse and historic preservation of buildings downtown.

Historic preservation examples

O'Neil's Adaptive Reuse
AES/Building 41
Troppe Historic District (Sky Bank, Deitling's Hammel, United & Nantucket)
US Post Office/Charles Mayer for Summa Health Systems
Lock 3 on Main Street/Landmark Building
Quaker Square Hotel to University of Akron student housing
Lock 3 North – mixed use redevelopment
Richard Howe House Relocation (Canal Engineer's House)

Park and Open Space Initiatives

- New Park Master plan - The city is nearing completion on a new master plan to compliment new housing and sustainable practices.
- Ohio and Erie Canal Corridor – The 16.2 mile length of the Ohio Canal Corridor in the City is nearing completion and is attracting significant redevelopment ranging from housing to mixed use entertainment and office redevelopment. It is evidence that open space and recreational corridors placed in the urban core are attractive amenities that appeal to our citizens.
- Particularly noteworthy is the completion of the Cascade Locks Towpath Trail Bikeway linking Downtown to all Ohio Canal destinations north and south with the major bike and pedestrian bridge over State Rt. 59.
- Goodyear – Little Cuyahoga River Enhancement. As part of the Goodyear-Riverwalk Redevelopment Project, the Little Cuyahoga River will be restored to its original alignment and new pedestrian and bike paths will be added to compliment the new Goodyear redevelopment.

Downtown Investment

- Lock 3 North – Adaptive reuse of 6 buildings adjacent to the Civic Theater into a mixed use development featuring 80 market rate rental housing units and entertainment/retail and specialty office. The former Akron Savings Building will be reused for 64 apartments. The Ohio Canal has been enhanced with improved access, pedestrian plazas, and viewing areas to compliment this mixed use redevelopment.
- Richland Communities –Mixed-use residential and retail development with 150 units and 450 bedrooms is nearly 50% complete. Retail leasing underway. Targeted at University of Akron students. Anticipated opening of Fall 2009 for approximately 50 % of project along South Main Street. Remainder by Spring 2010.

- Northside - 80 unit mid-rise condominium complex overlooking the Little Cuyahoga Valley. Anchors the Northside entertainment district. Developer now starting 30 unit townhouse home ownership project along N. Howard St.

- Legacy 1 & 2 – Adaptive reuse of the former US Post Office on E. Market St. into SummaCare medical offices. Legacy 2 represents reuse of former brownfield into a Long-Term Acute Care facility serving area hospitals.

- Gothic Building –This historic building on Mill St. at High St. creates a new mixed use retail and office building servicing several prominent law firms.

- METRO Transit Transfer Facility – Completed on an 8 acre site immediately south of Downtown, METRO now has a LEED certified passenger facility facilitating METRO customers into and out of the Downtown in a heated/cooled facility with sitting areas and restrooms. In addition, it serves as the regional transit hub for a number of bus lines serving the region.

Smart Energy & Emissions

LEED (Leadership in Energy and Environmental Design) projects in Akron, Ohio include:

- First LEED-certified building in Summit County was the Akron Zoo's new education center, Komodo Kingdom. Innovations such as geothermal heating and cooling, waterless urinals, recycling of water and low volatile organic compound (VOC) finishes are just part of what makes this facility environmentally –friendly.

- Summit County's Metro Park's one million dollar rehabilitation of a home on Sand Run Parkway into a LEED platinum certified ranger station set the pace. The site incorporates permeable pavers, a rooftop garden, ambient lighting, composting toilets, photovoltaic panels, the use of low volatile organic compounds, bamboo floors, many recycled building materials and geothermal heating. Next up for the park system is a green rehabilitation of the popular Seiberling Nature Realm.

- FirstEnergy Corporation completed their new $33 million West Akron campus on White Pond Drive for 1,000 employees. This is the city's first LEED office building to be completed, with under the floor HVAC system, sunshades to reduce energy use, a variety of parking accommodations for those who bike, carpool and drive low-emission vehicles, and drought resistance landscaping to reduce mowing.

- Metro Regional Transit Authority's began 2009 by opening their new Intermodal Transit Facility on Broadway. It has a solar panel array that is expected to offset 25% of the electricity used at the Transit Center. There are 432 panels mounted on the roof. The future gold LEED certified facility uses day-lighting, recycled materials, geothermal heating & cooling, waterless urinals, and a rainwater harvesting system for flushing the toilets and irrigating the landscaped areas.

- The new National Inventors Hall of Fame Middle School/Center for Science, Technology, Engineering and Mathematics Learning will feature a new curriculum for 500 students from grades 5-8. The building under construction is striving for a LEED silver certification. With the support of the Ohio School Facilities Commission, Phase III designs

for the next five schools that have been submitted to the U.S. Green Building Council for approval will be LEED silver certified. As a Professional development School for the University of Akron, the use of and the understanding of the sustainable features of the school will be studied and used in developing green lesson plans.

- Recently Goodyear Tire and Rubber Company (Goodyear) announced its commitment to keep its World Headquarters in Akron, Ohio. In an effort to secure that commitment, The City of Akron and its public and private partners agreed to a $900 million program referred to as the Goodyear Akron Riverwalk Project. All affected local units of government have shown support for the project, including the County of Summit, the State of Ohio, the City of Akron, Summit County Port Authority, The Greater Akron Chamber, as well as private foundations. This public commitment shared by City, County, and State is $200 million. The project is expected to result in 2 million square feet of redeveloped and new office and retail facilities. Goodyear reached an agreement with IRG Rubber City, LLC to sell most of its Akron real estate holdings, including the current headquarters, to IRG in return for the building of a new 550,000 square foot –LEED Certified, World Headquarters as well as a new North American Headquarters. More development at the site will take place, and will be completed in 4 phases. The Goodyear Akron Riverwalk Project helps Akron retain 2,900 jobs that would be lost had Goodyear not come to an agreement with the City of Akron. Additionally, keeping Goodyear in Akron provides the opportunity to create approximately 9,500 new jobs, while securing the future of the City and strengthening the region.

- West Side Office Park - The City of Akron is developing a LEED certified office park on White Pond Drive. This office park will have about 55 acres of developable land. Each building constructed on the site must be LEED certified. The state of Ohio, through their Job Ready Sites (JRS) program, provided a $1.7 million grant for the park. All JRS facilities must meet the LEED certification

- Akron Metropolitan Housing Authority (AMHA) is employing green building standards in its $50 million Edgewood Homes Hope VI development, adjacent to the Akron Zoo and the new Urban League/Helen Arnold Community Learning Center. These 176 apartments, 49 homes and 80 rental townhomes were built (2007-2011) using recycled materials, low VOC materials to improve indoor air quality, water conservation fixtures, and installing EnergyStar appliances to conserve energy.

- In 1998, the City contracted with Honeywell to provide an ESCO Program for ten downtown facilities. The ESCO program is a facility management system to control heating and air conditioning (HVAC) systems for the buildings. Also, a lighting retrofit was completed and energy efficient motors and drives were installed. By the end of May 2006, 8 years later, the city saved 42,000 megawatts, amounting to $3,315,934 in cost avoidance. The City is in the process of reviewing energy saving measures for City Hall and the CitiCenter. They will review the roofing systems, HVAC systems, windows, conduct a lighting audit and calculate the payback period associated with each proposed improvement.

- The 28-story FirstMerit Tower is Akron's tallest building and a landmark. Constructed in 1931, it just completed a 2 year extensive exterior restoration. VIP Restoration is used a dustless system to capture the majority of dust generated and in the first year of work more than 5 tons of air pollution was eliminated. Particulates are the primary pollutant that the Akron Regional Air Quality Management District monitors in an 8 county area of northeast Ohio.

- The Goodyear Tire and Rubber Company in 2005 replaced the existing coal-fired boilers with smaller natural gas/fuel oil boilers reducing the particulate emissions, nitrogen oxides, and sulfur oxides.

- The Ruscoe Company, Plant II at 219 E. Miller Avenue, Akron, Ohio, obtained substantial VOC reductions by initiating a new program that resulted in their processing a new hot melt adhesive that contains no VOC. Ruscoes' involvement in this project was aided by the Special Environmental Project provision connected with the Ohio EPA findings and orders issued in December 2001.

- Earth Day, April 22, 2008, was the date of the first Sierra Club's-Portage Trail Group-sponsored LightsOut, a public awareness campaign to get citizens to turn off all non-essential lighting between 8-9 p.m. The exercise was meant to encourage residences and businesses to conscientiously conserve energy by cutting back and turning off all electrical appliances, computers, thermostats and lighting when not home or in use. Akron joined many large cities promoting this international event in its second year. The environmental group is making plans for an expanded public awareness event in 2009.

- The H. K. Stubbs Justice Center installed an energy wheel that reclaims heat within exhausted air to conserve the amount of heat needed. The Building Maintenance Department eliminated ozone depleting gases from their heating and cooling system. When the roof needed to be replaced the system installed a white reflective roof to not absorb heat, just like the newer roof systems of Morley Health Center and the CitiCenter.

- The City of Akron retrofitted the Akron Centre Deck (Super Block) with LED (Light Emitting Diodes) lights. 564 lights were installed. The annual energy savings will be $68,226 and the return on investment will take 5-6 years.

- At the Canal Park Stadium in the spring of 2006, the City installed a new LED scoreboard. Light Emitting Diodes is a very durable type of lighting that last thousands of hours and only uses one sixth of the power of the old incandescent fixture scoreboard.

- In an effort to study the proper use of hybrid vehicles within the City of Akron's fleet in the future, Motor Equipment has purchased two Chevrolet Hybrid Malibus and one Ford Hybrid Escape delivered late in 2008. During the Greeprint Plan process the Motor Equipment Department staff has test driven an electric car, an all electric utility truck, two heavy duty truck hybrid chassis and examined compressed natural gas engines for heavy duty trucks.

- On August 8, 2008, Mayor Don Plusquellic and Summit County Executive Russ Pry jointly announced that the building divisions of the city and county will be merged as of February, 2009. It had already been decided that the city's Green Ribbon Panel and the county's Green Team Green Building committees should be working together to define the sustainability goals for the residential, commercial and industrial building codes.

- Good news for air quality in Akron. Due to the $4 a gallon cost of gas during 2008, Ohio drivers cut 14 million miles in the first half of the year. Every gallon of fuel that we avoid buying reduces emissions into our environment, producing local and regional air-quality benefits, reported the Akron Regional Air Quality Management District.

- The city's Motor Equipment garage is using approximately 1,000 gallons of waste oil to heat the garage area. Considering that heating oil was selling in the $4 a gallon range, the city could save approximately $4,000 dollars annually. The city generates 10,000 gallons of waste oil a year, which they sell to companies that reclaim oil for .68 a gallon. The potential for expanding this use of oil recycling for energy is good!

- The University of Akron incorporated day-lighting and occupancy sensors in their new addition to Guzzetta Hall, using 40% less energy than with conventional building standards. Energy savings from temperature setbacks through mid-January 2007, exceeded 3.9 billion BTU from expected consumption. Motion and heat activated lighting controls have been installed in 40% of the university buildings. The renovation of Rob's Cafe resulted in 49% less energy output for lighting and an 8% cooling load decrease

- The official Christmas tree at Lock 3 in December 2008 boasted 4,000 new blue LED lights, which could provide up to 100,000 hours of light compared to 1,000 hours offered by ordinary incandescent bulbs. They also do not produce heat and saved the city energy consumption.

- The City of Akron's Municipal Building is part of an energy saving pilot by using motion sensor light switches in some offices and restrooms in the building. In these areas energy use can be reduced by as much as 75% by using the lights only when needed.

- Managers of the Building Maintenance Department of the City of Akron attended lighting seminars to learn more about the energy saving lamps and ballasts now available for retro-fitting building fixtures, thanks to a new educational green design relationship with Graybar and GE Lighting of the Nela Park Lighting Institute. A lighting audit has been conducted at the Municipal Building, first city building on the list for a green retrofit with economic stimulus funding.

Smart Job Creation Successes

Construction Projects - LEED

- FirstEnergy Corp. completed construction of its West Akron Campus representing the city's first LEED certified office building. The 208,000 square foot facility incorporates design and technology aimed at conserving energy, promoting energy efficiency and creating a healthy workplace.

- METRO Regional Transit Authority completed construction of an Intermodal Transit Center designed, constructed and operating to meet Gold LEED certification standards. The Transit Center is a photovoltaic solar-powered facility that generates approximately 25% of the electricity used. The facility is also equipped with a geothermal heating and cooling system supplied by an on-site well field.

- White Pond Office Park is a 45-acre Job Ready Site for Smart Office construction projects. This site has LEED certification requirements and is located immediately across from the FirstEnergy West Akron Campus.

Akron Global Business Accelerator – Technology

- PolyFlow has developed a proprietary process to efficiently convert polymer waste into chemical feedstock.

- Vadose has licensed a technology that will convert polymer waste into synthetic crude oil. The company is in the process of setting up its modular pilot plant in the Accelerator's demonstration center.

- MAR Systems has developed a proprietary process to cost effectively remove toxic materials from air and water.

- Princeton Environmental has licensed a Japanese bio mass/ solid waste gasification technology and recently relocated to Akron from New Jersey. Princeton will concentrate on the disposal of hazardous hospital waste in a benign and closed loop system for America's 11,000 hospitals.

- reXorce Thermionics has licensed a NASA technology to convert waste industrial heat into electricity, usable heat or cooling. The company will be prototyping this technology for 3 Ohio companies.

- MemPro Ceramics Corporation offers a number of ceramic-based filtration products. Technologies include micro, ultra and nano-filtration products for liquid purification, high temperature gas filtration as well as catalysis and nano-fiber products that reduce chemical processing costs and reduce emissions.

Other - Recycling

- Plastic Lumber Company is a graduate of the Akron Industrial Incubator, now the Akron Global Business Accelerator. The company builds yard furniture from recycled plastic.

Smart Materials & Solid Waste Management

- Akronites have been curbside recycling through the city's Sanitation Department for almost two decades, but before the new Smart Carts were introduced in 2007 the city had 23% of their households recycling. The new blue recycling toters, designed for the new automated packer trucks, were distributed and citizens began saving $24 on their yearly trash collection bill! Recycling rose between 2005 and 2007 by 2,800 tons and 57% of the city recycling customers were participating weekly. Not only did the new city automated collection system make recycling easier, but it also made the neighborhoods look better on trash collection days and less litter was left behind.

- City crews applied up to 16,000 gallons of beet juice, Geo-Melt, mixture to city streets to keep the snow from bonding with the pavement and making conditions icy. The beet juice sticks to the streets, lasts longer and works at temperatures as low as 60 degrees below zero. It is combined with calcium chloride and rock-salt brine.

- The Akron Aeros, the AA Cleveland Indians baseball team, recycled aluminum cans, glass and plastic bottles during the 2008 season at the city's Canal Park Stadium. The activity was arranged with impetus from Keep Akron Beautiful and assistance from the Summit-Akron Solid Waste Management Authority. Portage County Solid Waste District handled the recycling logistics for 11,726 pounds (6 tons) of cans, plastics, glass and cardboard throughout the season, under a City of Akron contract. The new commodities join mixed paper and cardboard already being recycled at the ballpark.

- A pilot project of the Summit-Akron Solid Waste Management Authority, Get Caught Green Handed, hit the streets of Akron in the spring of 2008. When staff members spotted full Smart Carts of recyclables, they left a green hand yard sign and the homeowner received a free gift card or ticket as a thank you gesture. In Summit County, 90% of residents have opportunities to recycle and this campaign was meant to get them to use the services provided!

- Downtown Akron Partnership (DAP) wanted to address their member's needs for commercial recycling, so they asked Keep Akron Beautiful and the Summit-Akron Solid Waste Management Authority to work with them on a two phased approach. The Authority conducted a survey, followed by an assessment of the downtown restaurant's need for cardboard recycling. A request for proposals was sent to local haulers to set up 6 recycling centers to service their needs in 2009. The second phase will look at assisting office building owners and management companies to make office recycling easier and more accessible for their tenants.

- The Parks Maintenance Division grinds up yard waste to use as landscape mulch in the city parks. They also purchase plastic lumber benches and picnic tables from our local Plastic Lumber Company for use in the city park system.

- The city Street Cleaning Division collects on average 50,000 cubic yards/year of leaves that are recycled by K. B. Compost Services into Earth Pro, a soil nutrient at the Akron Compost Facility or added to enriched wood waste mulch used by the Parks Maintenance Division. This keeps the leaves out of the storm water inlets and sewer overflow pipes, the Wastewater Treatment Plant, the Ohio Canal and ultimately, the Cuyahoga River.

- Building Maintenance Cleaning personnel utilize products that are more environmentally friendly, bio-degradable and not acid based. Cleaning personnel are asked to turn off the lights and non-essential equipment after cleaning offices at night.

- The Engineering Department specifies low volatile organic compounds (VOC) carpet and floor tile adhesive on work orders to improve air quality, they specify electronic ballast fluorescent lights to eliminate PCBs and use of energy to turn on lights. They specify crushed concrete fill for building sub-grades to promote use of a recycled material. Bids specify carpet with a high percentage of recycled content in the backing and latex paints wherever possible to promote recycled content products and once again to minimize VOCs from entering the air.

- Akron's Public Works Department is participating in a joint venture in 2009 with Angelo Benedetti, Inc. to recycle asphalt through a new Hot in Place Asphalt Recycling program for resurfacing city streets. By 2010 the City will own the machines and use city crews. This process uses the existing asphalt (recycling 100% of it) saving aggregate, sand, liquid asphalt, the energy to operate the asphalt plant, the pavement grinder, and the numerous vehicles needed for trucking the resurfacing materials. The CO2 emissions are reduced by 55% and Hot in Place is 50% less expensive than the traditional process. This process will help the City reach the goal of re-surfacing more streets by stretching the budgeted dollars. Highway Maintenance is testing a product that would reduce the need for a petroleum-based product used to penetrate the asphalt surface and soften the asphalt to seal it. It is called Replay and it is a soybean product that extends the longevity of asphalt surfaces. It was piloted on three Akron streets in October 2008 to test its effectiveness at reversing oxidation caused by sunlight that leads to cracks where water can seep in and freeze, eventually breaking up the roadway

- More vehicles in 2008 (10,259) dropped off household hazardous waste at Summit County's Household Hazardous Waste Recycling Center including Akron residents. Over 929,000 pounds of paint and toxic wastes were collected and 3,075 scrap tires. This year, citizens dropped off 160,304 pounds of computers and 70,864 pounds of TV sets – most of which were recycled.

- In an effort to increase overall curbside recycling tonnage, the City Sanitation Department is now accepting ALL grades of plastic (#1-#7) in their curbside blue Smart Carts. In other programs increasing the acceptable commodities has helped to increase volume and decrease the amount of trash collected curbside

- City of Akron Purchasing Department is hosting a Green Product Faire on April 3, 2009 at the Street Cleaning and Highway Maintenance Garage at Triplett Boulevard. City Managers will be invited to attend to learn about and test new green products for varied uses in their departments

- Parks Maintenance has started two new "grassroots" green initiatives for spring 2009! They have purchased a Neuton battery powered lawn mower to be tested on small downtown areas such as the Civic Mall and Lock 3 Park. The other is piloting two non-hazardous methods of reducing geese droppings at Lock 3 Park and on the AES Canal Towpath. One method to be installed is a Scare Windmill, a windmill with 36" blades painted with a UV light paint, and the second method is an Eagle Jackite which is a kite with a 54" wing span. These will be installed prior to the geese setting up residence in early March.

Smart Transit

- The City of Akron is moving forward on plans and programs to make bicycling an active part of the City's transportation and recreation culture. An inter-departmental group including Engineering, Planning, Traffic Engineering, Economic Development, Parks and Recreation and the Akron Police Department have been meeting since March 2008 to develop a comprehensive program. This follows on the American League of Bicyclists recommendations for a program of Education, Encouragement, Enforcement, Engineering and Evaluation. City staffers met in the City's wards to tailor program options to the different City neighborhoods. The City has started a long-term effort to place road signs and street markings in various locations that help cyclists be safe on the road and identify preferred bike routes through the City. The first efforts began in University Park, aided by the University Park Alliance and enhanced by the University of Akron's efforts to promote biking to campus. Akron's first Bike Week was August 22-30, 2008. It was kicked off with the official opening of the Towpath Bridge over the innerbelt, downtown.

- The City of Akron Traffic Division installed approximately 3,200 red LED (light emitting diode) lenses in all traffic signals in 2003. This was done to save electricity and lower maintenance costs. After installation of the lenses the city realized a savings of 20% in their yearly electric usage. The LED lenses use less than 10% of the energy of incandescent bulbs, but appear brighter to drivers and last 7-10 years, whereas incandescent bulbs last 2 years. They fit into existing housings, and burn out gradually so they can be monitored without burning out all at once. Next step is to install green lenses throughout the city. The City Traffic Engineering uses solar powered flasher signals.

- To reduce the amount of idling time for citizens, Traffic Engineering improved the traffic signal progression on major streets and flashes the traffic signals overnight to save gas and reduce emissions.

- The City has worked with the Spicer Village, a new urban town home development in the University Park, to make it pedestrian friendly, with plenty of green space. The sales staff envisions a homeowners association that will rely less on two car families and more on shared car memberships, bicycles and alternative fuel vehicles.

- The Ohio Rideshare program started in January 2007. It successfully achieves air pollution reductions while promoting computer-matching of potential carpool partners. Three agencies responsible for transportation planning in Akron, Cleveland and Youngstown sponsors this service for residents of 13 counties in northeast Ohio. During the spring 2008 increase in gas prices, the program added 265 users, doubling the size of the Ohio Rideshare database!

- METRO Regional Transit Authority (RTA) operates two routes that go to downtown Cleveland, approximately 40 miles away. Combined, these routes transport more than 125 passengers each day to employment in Cleveland. That is 125 cars removed from the expressway each weekday. This service saw an increase of 40% in May and June, 2008.

- METRO RTA opened the Intermodal Transportation Center in downtown Akron in January of 2009. The facility will have bike racks, be pedestrian friendly and will have extensive drought resistant landscaping. The soon to be LEED certified building has 432 solar panels on the roof providing all their energy needs. A geothermal HVAC system features 45 wells drilled into the earth. A cistern collects water for the flushing toilets and watering the minimal landscaping. The design features day-lighting and used recycled building materials.

- METRO RTA transports typically 5.8 million passengers annually. In 2008, they expect to transport more than six million trips on METRO line service routes and METRO SCAT buses

- In 2007, all of Metro's fixed route buses were equipped with bike racks. In 2008 approximately 230 bikes each month were on the bike racks. That is up from 130 per month when first introduced in 2007. METRO promotes the ability to use the bike racks as a way to commute to and from school, work, shopping and as an additional, convenient way to get closer to area parks. .

- METRO RTA has ordered their first GILLIG Hybrid bus. It is a variant of the low floor model that is powered by a clean diesel hybrid electrical propulsion system. It will reduce emissions, save on fuel and ride smoother and quieter than a conventional bus. If it performs like expected it will be environmentally and economically responsible, while also being passenger and community-friendly.

- Bicycle racks have been installed downtown at City Hall, Lock 3, Canal Park and at Cascade Plaza to help promote the use of bikes for commuting.

- The Akron Police Department (APD) Bike Unit was established in 1994 to provide directed patrols in neighborhoods, business districts and entertainment venues while providing more visible presence and access to the community. There are two Bike Units, one is the Community Policing Officers who focus on their assigned neighborhoods and the second is the late evening patrol shift. Thanks to the Lebron James Bike-A-Thon, the unit has been given ten new Cannondale bicycles to replace aging APD bikes in disrepair.

- City legislators have approved the construction of the Ohio & Erie Canal Towpath for bikers and hikers through downtown Akron during the summer of 2008. Two links from the Beech Street trailhead (handicapped accessible) and the link from Wilbeth Road to Waterloo in South Akron are the last stretches of Akron towpath on the canal's towpath journey from Cleveland to Zoar.

- Highway Maintenance and Motor Equipment recycle collected or scrap shop metal and tires for recycling. Motor Equipment re-caps truck tires, collects and recycles used oil. Motor Equipment crushes all oil filters in-house, making it possible to recycle 95% of the residual oil for recycling and shrinking the size of the oil filter by 75% for sending to the landfill.

- Effective January 9, 2009, the Public Service Department re-issued a city vehicle No-Idle Policy to all Service Department employees operating vehicles and equipment in city operations. Keep Akron Beautiful has also adopted the policy for their employees who drive city vehicles.

- .Greyhound Lines moved from their Grant Street facility to the new Intermodal Transit Center at 631 S. Broadway, sharing the space with Metro Regional Transit Authority. Greyhound offers 18 daily routes to destinations across the country as well as PackageX-press shipping. They expect to 600 Greyhound customers each week day! For more information go to www.greyhound.com

- Bike Aboard! A summer service of the Cuyahoga Valley Scenic Railroad, resumed in 2008 to transport national park visitors and their bikes from Northside Train Station in downtown Akron to Independence, Ohio and six points in between. This $2 fare will continue to entice visitors to the national park in 2009, April through October.

Smart Water & Wastewater Management

- Joint Economic Development Districts (JEDDS) were created in 1994 to promote regional cooperation and provide an economic tool for Akron in township areas. The City of Akron reinvests a portion of funds from the JEDD initiatives into water and sanitary sewer projects extending these services into township service areas, creating opportunities to eliminate aging underground septic systems that often leak and pollute the surrounding environment as well as the underground water table. Over 4,000 water and/or sewer tap-ins are completed and associated septic systems abandoned. The wastewater flows to Akron's modern wastewater treatment plant avoiding the need to create an additional treatment facility in the township. The treatment plant recycles clean water back into the environment and harvests the gas generated by composting bio-sludge material to fuel a generator which produces electricity helping to power the plant. Constructive management of natural resources has come full circle.

- Akron is fortunate to have an active Summit Soil & Water Conservation District who takes the lead in educating 3,685 citizens and youth in Summit County during 2007 about topics such as: Non-point Source Pollution, Groundwater, Health of Streams and Monitoring, Storm Drain Marking, Watershed Maintenance, and Rain Gardens.

- Beginning in the spring of 2008, the City of Akron started purchasing inlet castings and grates bearing the following language, Dump No Waste (or Don't Dump), Drains to Waterways. This language will be cast into all new inlet castings and grates to help educate the public to not deposit litter or used oil or allow excess yard chemicals to run off into the storm drains. Ultimately, this will help to improve the quality of our streams and rivers.

- The Akron Water Pollution Control Station processed 28.499 billion gallons of wastewater in 2008 and produced 13,192 tons of dry solids. The adjacent Akron Compost Facility produced 78,847 yards of compost material (Earth Pro) with 71341 yards being sold in bulk and 227 yards being sold in bags to the public as a soil amendment.

- The Anaerobic Digestion System (ADS)/Biogas Project has been operational since April 2008 and is generating enough methane gas to power its 335 Kilowatt (KW) generator at full power. During the warmer months any excess methane gas being produced is flared off into the atmosphere. Options to utilize the excess methane are being investigated. Final design of a process to allow for beneficial use of the digested wastewater sludge is nearly completed. After a demonstration operating period of the new ADS process, the City of Akron plans to pursue converting the remaining two-thirds of the facility over to the ADS process.

- The City of Akron used landfill gas from the closed Hardy Road Landfill (2002) through March 2008 to supply 25% of the Water Pollution Control Station's building heating needs by partially firing up to 9 boilers on landfill gas. The landfill gas operator is working on a sustainable plan to modify the landfill gas system to remove the CO2 from the landfill gas, producing a pipeline quality gas to sell to the Akron Water Pollution Control facility and the local natural gas utility on a year round basis. Potential annual energy savings for the Akron Water Pollution Control Division could approach $100,000 per year if the plan is successful.

- The Keep Akron Beautiful Education Specialist, Pam Ray, takes the Enviroscape hands-on non-point source demonstration model into Akron's middle school classrooms. In 2007 she performed 31 presentations reaching 691 sixth through eight grade science students. She also offers teachers classroom presentations on topics such as landfills and recycling.

- The City of Akron constructed the Rack 40 (Cuyahoga Street) Storage Basin to capture up to 10 million gallons of combined sewer overflow during major rain events instead of discharging it into the Little Cuyahoga River. The captured volume is later sent to the Water Pollution Control Station for treatment, protecting human health and enhancing aquatic life in the river.

- The Sewer Maintenance Section has converted all but two diesel standby generators to natural gas standby generators which are more efficient and produce fewer emissions.

- The Water Distribution Section is working to change out all of Johnston Street facility and all pump stations interior lights to the compact fluorescent type, reducing 804 pounds of pollution per bulb over the life of each bulb. The Water Pollution Control Station installed energy efficient lighting, bulbs and ballasts throughout the facility to reduce energy consumption. The new EPA approved light bulbs contain no mercury, reducing the amount of hazardous waste created.

- The Water Pollution Control Station purchased fuel efficient golf carts to transport workers around the wastewater treatment facility instead of using pick-up trucks, saving on gasoline usage. Several of the golf carts are battery powered.

- At the Water Pollution Control Station, a new energy efficient HVAC system was installed in the laboratory in 2008 to reduce energy by 50%, especially during periods of peak demand. The system includes a new air conditioner with the new EPA approved refrigerant, which is safer for the environment if it escapes from the system

- Ohio EPA storm water permit requirements have been put into place to cover construction activities within the city in an effort to reduce sediment and nutrient loadings into lakes and streams due to uncontrolled rates and volumes of storm water. Post construction storm water best management practices have also been instituted to control rates and quality of runoff.

- The Akron Engineering Bureau specified installation of pervious concrete pavement in the Beech Street Trailhead 2008 project at the Cascade Locks Park. This porous concrete will reduce stormwater runoff, recharge aquifers and provide stormwater storage and water quality improvement.

- Two City employees are trained to deliver the Cuyahoga River Sciencing in Watershed through Environmental Educational Partnerships (SWEEP) curriculum to 4th and 6th grade classes.

- The Public Utilities Bureau sent a representative to the Central Ohio Rain Garden Initiative Workshop & Training in October 2008 to learn about promoting a green infrastructure. It gave Akron a perspective on how it may want to work with the public to address stormwater quantity, quality and beautification issues.

Section V

Akron's Carbon Footprint. Overviews of ICLEI Baseline 2005 Results

Greenhouse Gas Emissions Analysis
2005 Community Emissions Inventory

&

2005 Government Operations Emissions Inventory
City of Akron, Ohio – August 2008

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Introduction

On March 31, 2008, the City of Akron, Ohio Council adopted a resolution committing the City to taking action for climate protection (see Appendix 1 for a copy of the resolution). Through this resolution, the City recognized the "profound effect" that greenhouse gases emitted by human activity are having on the Earth's climate, as well as the City's opportunity to reduce these emissions, both through its government operations and by inspiring change throughout the community. Through energy efficiency in its facilities and vehicle fleet, alternative clean energy sources, waste reduction efforts, land use and transit planning, and other activities, the City of Akron, Ohio can achieve multiple benefits, including saving energy and money, reducing emissions, and preserving quality of life in our community. With the assistance of ICLEI – Local Governments for Sustainability, the City has begun its efforts to identify and reduce greenhouse gas emissions.

This document represents completion of the first milestone in ICLEI's five milestone process: conducting an inventory of greenhouse gas emissions. Presented here are estimates of greenhouse gas emissions resulting from our community as a whole, as well as those resulting from the City's internal government operations. Due to data availability, the community and government operations data is based on the year 2005. This data will provide a baseline against which we will be able to compare future performance, enabling us to demonstrate progress in reducing emissions.

Climate Change Background

A balance of naturally occurring gases dispersed in the atmosphere determines the Earth's climate by trapping solar heat. This phenomenon is known as the greenhouse effect. Modern human activity, most notably the burning of fossil fuels for transportation and electricity generation, introduces large amounts of carbon dioxide and other gases into the atmosphere. Collectively, these gases intensify the natural greenhouse effect, causing global average surface temperature to rise, which is in turn expected to affect global climate patterns.

Overwhelming evidence suggests that human activities are increasing the concentration of greenhouse gases in the atmosphere, causing a rise in global average surface temperature and consequent climate change. In response to the threat of climate change, communities worldwide are voluntarily reducing greenhouse gas emissions. The Kyoto Protocol, an international effort to coordinate mandated reductions, went into effect in February 2005 with 161 countries participating. The United States is one of three industrialized countries that chose not to sign the Protocol.

In the face of federal inaction, many communities in the United States are taking responsibility for addressing climate change at the local level. The community of the City of Akron, Ohio might be impacted by drought that would reduce the levels of water in the Great Lakes, by bad weather increasing air quality problems and leading to more incidence of pneumonia and respiratory illnesses, and more severe winter ice storms that could interrupt power transmission and increase property damage losses, as well as other changes to local and regional weather patterns and species

migration. Beyond our community, scientists also expect changing temperatures to result in more frequent and damaging storms accompanied by flooding and land slides, summer water shortages as a result of reduced snow pack, and disruption of ecosystems, habitats and agricultural activities.

The Communities for Climate Protection Campaign

By adopting a resolution committing the City to locally advancing climate protection, the City of Akron, Ohio has joined an international movement of local governments. More than 800 local governments, including over 350 in the United States, have joined ICLEI's Cities for Climate Protection (CCP) campaign. In addition, the City of Cleveland, Ohio, located north of Akron, is a CCP participant.

The CCP campaign provides a framework for local communities to identify and reduce greenhouse gas emissions, organized along five milestones:

1) Conduct an inventory of local greenhouse gas emissions;
2) Establish a greenhouse gas emissions reduction target;
3) Develop an action plan for achieving the emissions reduction target;
4) Implement the action plan; and,
5) Monitor and report on progress.

This report represents the completion of the first CCP milestone, and provides a foundation for future work to reduce greenhouse gas emissions in the City of Akron, Ohio.

Greenhouse Gas Emissions Inventory

The first step toward reducing greenhouse gas emissions is to identify baseline levels and sources of emissions in the City of Akron, Ohio, as well as the sectors of our community and government operations that are responsible for the bulk of these emissions. This information can later inform the selection of a reduction target and possible reduction measures.

Methodology and Model

ICLEI's Communities for Climate Protection methodology assists local governments to systematically track energy and waste related activities in the community, and to calculate the relative quantities of greenhouse gases produced by each activity and sector. The inventory methodology involves performing two assessments: a community-wide assessment and a separate inventory of government facilities and activities. The government operations inventory is a subset of the community inventory.

Once completed, these inventories provide the basis for the creation of an emissions forecast, and allow for the quantification of emissions reductions associated with proposed measures.

CACP Software

To facilitate community efforts to reduce greenhouse gas emissions, ICLEI developed the Clean Air and Climate Protection (CACP) software package with the State and Territorial Air Pollution Program Administrators (STAPPA), the Association of Local Air Pollution Control Officials (ALAPCO), and Torrie Smith Associates. This software calculates emissions resulting from energy consumption and waste generation. The CACP software determines emissions using specific factors (or coefficients) according to the type of fuel used. Greenhouse gas emissions are aggregated and reported in terms of equivalent carbon dioxide units, or CO2e. Converting all emissions to equivalent carbon dioxide units allows for the consideration of different greenhouse gases in comparable terms. For example, methane is twenty-one times more powerful than carbon dioxide on a per molecule basis in its capacity to trap heat, so the CACP software converts one ton of methane emissions to 21 tons of carbon dioxide equivalents. The CACP software is also capable of reporting input and output data in several formats, including detailed, aggregate, source-based, and time-series reports.

The emissions coefficients and methodology employed by the CACP software are consistent with national and international inventory standards established by the Intergovernmental Panel on Climate Change (1996 Revised IPCC Guidelines for the Preparation of National Inventories) and the U.S. Voluntary Greenhouse Gas Reporting Guidelines (EIA form1605).

The CACP software has been and continues to be used by over 350 U.S. cities, towns, and counties to reduce their greenhouse gas emissions. However, it is worth noting that, although the software provides the City of Akron, Ohio with a sophisticated and useful tool, calculating emissions from energy use with precision is difficult. The model depends upon numerous assumptions, and it is limited by the quantity and quality of available data. With this in mind, it is useful to think of any specific number generated by the model as an approximation of reality, rather than an exact value.

Creating the Inventory

Our greenhouse gas emissions inventory consists of two essentially distinct inventories: one for the City of Akron, Ohio community as a whole, defined by our geographic borders, and one highlighting emissions resulting from the City of Akron, Ohio's internal government operations. The government operations inventory is a subset of the community inventory (the two are not mutually exclusive). This allows the government, which formally committed to reducing emissions, to track its individual facilities and vehicles, and to evaluate the effectiveness of its emissions reduction efforts at a more detailed level. At the same time, the community analysis provides a performance baseline against which we can demonstrate progress being made throughout the City of Akron, Ohio community.

Creating our emissions inventory required the collection of information from a variety of sources. (See Appendix 2 for inventory data source information.) Data from the year 2005 was used for the community inventory and for the government operations inventory.

When calculating the City of Akron, Ohio's emissions inventory, all energy consumed in the City of Akron, Ohio was included. This means that, even though the electricity used by City of Akron, Ohio residents is produced elsewhere, this energy and the emissions associated with it appears in the City of Akron, Ohio's inventory. The decision to calculate emissions in this manner reflects the general philosophy that a community should take full responsibility for the impacts associated with its energy consumption, regardless of whether or not the energy generation occurs within its geographic borders.

Inventory Results

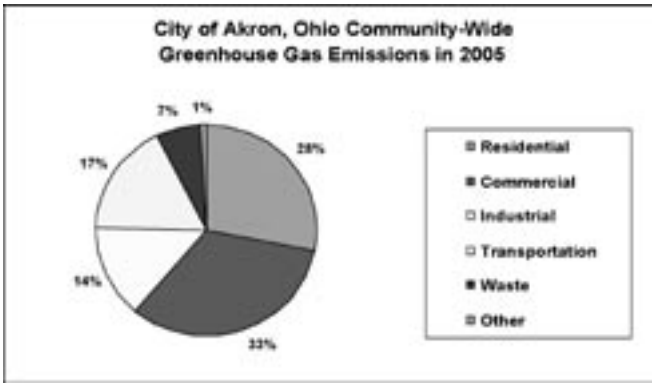
Community Emissions Inventory

In the base year 2005, the community of the City of Akron, Ohio emitted approximately 5,023,230 tons of CO2e. As shown in Table 1, and illustrated in Figure 1, Commercial use was the greatest contributor to greenhouse gas emissions at 33% of the total. Residential use contributed 28%, Transportation contributed 17%, Industrial use contributed 14%, Waste contributed 7%, and Other sources contributed 1% of the community's total greenhouse gas output. (See Appendix 3 for a detailed report of the Community Greenhouse Gas Emissions in 2005.)

Table 1: City of Akron, Ohio Community-Wide Greenhouse Gas Emissions in 2005

Sector	Greenhouse Gas Emissions (tons CO2e)	Energy Equivalent (MMBtu)
Residential	1,408,002	13,464,465
Commercial	1,659,454	8,883,819
Industrial	708,091	2,316,360
Transportation	873,454	10,181,314
Waste	328,267	0
Other	45,961	0
Total	5,023,230	34,845,958

Figure 1: City of Akron, Ohio Community-Wide Greenhouse Gas Emissions in 2005



The City of Akron, Ohio community's consumption of electricity and other fuels in local buildings and vehicles is also responsible for the release of criteria air pollutants, including NOX, SOX, CO, VOCs, and PM10. As shown in Table 2, the Transportation sector contributed the most NOx, CO and VOC emissions, while the Other sector (which includes closed landfill and coal emissions) contributed the most SOx emissions, and the Commercial sector contributed the most PM10 emissions.

Government Emissions Inventory

In the base year 2005, the City of Akron, Ohio's government operations generated approximately 144,165 tons of CO2e. The City's Buildings sector was responsible for the largest share of greenhouse gas emissions at 46%. The Water/Sewage sector contributed 33%, the Streetlights sector contributed 11%, the Vehicle Fleet sector contributed 8%, and the Employee Commute sector contributed 2%. The Other sector, which includes emissions from the Akron Fulton Airport, contributed less than 1%.

During 2005, the City of Akron, Ohio government spent approximately $8,332,940 on energy-related expenses for its Buildings, Vehicle Fleet, Streetlights, and Water/Sewage sectors. Beyond reducing harmful greenhouse gases, any future reductions in government operations' energy use have the potential to reduce this expense, enabling City of Akron, Ohio to reallocate limited funds toward other deserving causes. Table 3 and Figure 2 below illustrate the breakdown of government operations emissions and costs by source type. (See Appendix 4 for a detailed report of the Government Greenhouse Gas Emissions in 2005.)

It is important to note that Waste data for government operations was not available, and therefore is not included in the government operations inventory.

Figure 2: Government Operations Greenhouse Gas Emissions in 2005

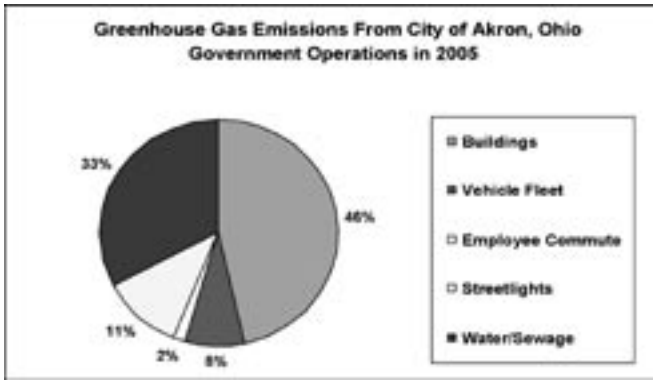


Table 2: City of Akron, Ohio Community-Wide Criteria Air Pollutant Emissions in 2005

Sector	NOX (tons)	SOX (tons)	CO (tons)	VOCs (tons)	PM10 (tons)
Residential	4,338,649	6,201,878	660,707	123,719	206,310
Commercial	4,877,669	13,505,087	16,901,370	2,502,735	1,939,643
Industrial	2,366,062	6,034,920	183,373	21,647	147,410
Transportation	6,002,119	322,311	46,130,583	4,808,928	174,166
Other	2,035,000	17,967,640	365,480	22,020	198,580
Total	19,619,499	44,031,836	64,241,513	7,479,050	2,666,109

Table 3: City of Akron, Ohio Government Operations Emissions Summary in 2005

Sector	Greenhouse Gas Emissions (tons CO2e)	Energy Equivalent (million Btu)	Cost ($)
Buildings	67,000	290,257	2,832,298
Vehicle Fleet	11,472	134,531	2,234,634
Employee Commute	2,499	29,238	0
Streetlights	15,867	48,379	560,802
Water/Sewage	47,214	176,476	2,705,206
Other	114	0	0
Total	144,165	678,881	8,332,940

Government operations emissions in City of Akron, Ohio constitute about 3% of the community's total greenhouse gas emissions. This is not unusual; local government emissions typically account for around two percent of community levels. As a minor contributor to total emissions, actions to reduce government operations energy use will have a limited impact on the City of Akron, Ohio community's overall emissions levels. However, as previously mentioned, government action has symbolic value that extends beyond the magnitude of emissions actually reduced.

Tables 4, 5, 6 and 7 break down the Buildings, Vehicle Fleet, Streetlights, and Water/Sewage sectors into sub-sectors, and show the emissions and costs associated with each sub-sector.

Table 4: City of Akron, Ohio Building Energy Use
Greenhouse Gas Emissions in 2005

Building Type	Greenhouse Gas Emissions (tons CO2e)	Energy Equivalent (MMBtu)	Energy Cost ($)
Community Centers	4,445	24,862	312,766
Fire Stations	2,435	16,915	206,268
Office Facilities	21,762	83,306	1,139,831
Parking Decks	21,445	78,180	496,058
Parks	4,116	23,236	321,080
Service Facilities	12,583	63,105	339,453
Miscellaneous	214	654	16,843
Buildings Total	67,000	290,257	2,832,298

Table 5: City of Akron, Ohio Vehicle Fleet
Greenhouse Gas Emissions in 2005

Vehicle Type	Greenhouse Gas Emissions (tons CO2e)	Energy Equivalent (MMBtu)	Total Fuel Cost ($)
Equipment	750	8,702	157,188
Auto – Full-Size	2,498	29,772	480,678
Auto – Mid-Size	1,286	14,987	241,838
Auto – Sub-Compact/ Compact	2	26	415
Heavy Trucks	4,098	47,521	815,887
Light Trucks/ SUVs/Pickups	1,470	17,375	278,128
Motorcycles	10	118	1,968
Passenger Vehicles	371	4,334	70,348
Vanpool Vans	985	11,693	188,185
Vehicle Fleet Total	11,472	134,531	2,234,634

Table 6: City of Akron, Ohio Streetlights
Greenhouse Gas Emissions in 2005

Lighting Type	Greenhouse Gas Emissions (tons CO2e)	Energy Equivalent (MMBtu)	Energy Cost ($)
Street Lighting	15,049	45,885	513,154
Private Outdoor Lighting	24	72	6,162
Traffic Lights	533	1,624	25,298
Parking Lot	262	798	16,188
Streetlights Total	15,867	48,379	560,802

Table 7: City of Akron, Ohio Water/Sewage
Greenhouse Gas Emissions in 2005

Facility Type	Greenhouse Gas Emissions (tons CO2e)	Energy Equivalent (MMBtu)	Energy Cost ($)
Sewer CSO Racks	230	701	13,972
Sewer CSO Sampling Stations	13	39	1,394
Sewer Operation Facilities	25,454	90,325	1,407,870
Sewer Pump Stations	1,573	5,931	103,584
Water Operation Facilities	17,062	70,689	1,049,949
Water Tanks & Pump Stations	2,883	8,790	128,437
Water/Sewage Total	47,214	176,476	2,705,206

The City of Akron, Ohio was also responsible for the release of criteria air pollution in 2005, as shown in Table 8. These pollutants have been linked with various environmental and public health outcomes and many of the actions we might take to reduce greenhouse gas emissions will also have a positive impact in reducing these pollutants as well.

Table 8: City of Akron, Ohio Government Operations Criteria Air Pollutant Emissions in 2005.

Sector	NOX (lbs)	SOX (lbs)	CO (lbs)	VOCs (lbs)	PM10 (lbs)
Buildings	188,014	602,535	726,791	97,986	75,216
Vehicle Fleet	74,719	3,459	350,003	36,795	2,479
Employee Commute	15,111	808	162,092	16,622	349
Street Lights	52,631	136,933	3,811	428	3,314
Water/ Sewage	156,429	386,383	12,766	1,684	9,643
Other	1,259	152	0	8,721	4,734
Total	488,163	1,130,270	1,255,464	162,238	95,736

Conclusion

In passing a resolution to join the Communities for Climate Protection campaign, the City of Akron, Ohio made a formal commitment to reduce its emissions of greenhouse gases. This report lays the groundwork for those efforts by estimating baseline emissions levels against which future progress can be demonstrated.

This analysis found that the City of Akron, Ohio community as a whole was responsible for emitting approximately 5,023,230 tons of CO2e in the base year 2005. The City of Akron, Ohio's own government operations were responsible for emitting approximately 144,165 tons of CO2e in 2005. The City of Akron, Ohio's government operations account for roughly 3% of the community's total greenhouse gas emissions.

Following the ICLEI methodology, we recommend that the City of Akron, Ohio next forecast anticipated future emissions and engage in consideration of potential greenhouse gas reduction targets for both the community as a whole and internal government operations. The City should also begin to document emissions reduction measures that have already been implemented since the base years documented in this report, and to quantify the emissions benefits of these measures to demonstrate progress made to date.

Next, the City should begin to identify potential new emissions reduction measures that might be implemented in the future, including energy efficiency, clean energy, vehicle fuel efficiency or alternative fuel use, trip reduction strategies, waste reduction, and other projects. We feel confident that a number of opportunities exist for the City to reduce emissions while saving taxpayer dollars, improving efficiency, and reducing waste.

Section VI

Smart Action Areas: Goals, Objectives, Strategies & Action Plan

Smart Community Education & Promotion of Progress

Smart Conservation of Natural Resources

Smart Development

Smart Energy & Emissions

Smart Green Jobs

Smart Materials & Solid Waste Management

Smart Transit

Smart Water & Wastewater Management

2009 Greentprint Panel
Point people and committee

Smart Energy & Emissions – Brad Beckert [BeckeBr@ci.akron.oh.us]

Green Building – Joe Schiavone [jschiavone@summitoh.net]

Smart Water & Wastewater Management – Mike McGlinchy [McGliMi@ci.akron.oh.us]

Smart Materials & Solid Waste Management – Michael Pickett [PickeMi@ci.akron.oh.us] Joe Asher [AsherJo@ci.akron.oh.us] Pat Ashbrook [Ashbrpa@ci.akron.oh.us

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Smart Conservation Of Natural Resources – Bill Hahn[HahnBi@ci.akron@ci.akron.oh.us] Jon Malish [MalisJo@ci.akron.oh.us]

Smart Community Education and Promotion of Progress – Paula Davis [davispa@ci.akron.oh.us]

Smart Jobs – Adele Roth [rothad@ci.akron.oh.us]

Summit Green Team – Susan DeChant [sdechant@summitoh.net]

Greenprint for Akron Green Ribbon Panel

City of Akron

Dave Lieberth – Mayor's Chief of Staff-Mayor's Office
Rick Merolla – Service Director
Paula Davis – President & CEO, Keep Akron Beautiful, Greenprint Director
Mark Albrecht – Economic Development/Brown Fields -Corporate Development
Joette Anderson – Community Health Assessment Health Promotion Division
Gary Arman – Building Maintenance - Manager
Pat Ashbrook – Purchasing
Joe Asher – Highway Maintenance-Superintendent
Brad Beckert – Engineering-Environmental
Ralph Coletta – Engineering Manager
Jerry Egan – Comprehensive Planning Administrator
Dave Gasper –Traffic Engineering
Brian Gresser –Mgr. Waste Water Treatment Plant Water Pollution Control
Pat Gsellman – Manager Engineering Environmental
Bill Hahn – Engineering-Construction
Genny Hanna – Engineering-Environmental
Mike McGlinchy – Public Utilities Manager
Jon Malish – Engineering-Construction
Frank Markunas –Health Department
Tina Merlitti – Ward 7 Council Representative
Diane Miller-Dawson – Director of Finance
Michael Pickett – Sanitation
Randy Rose – Building Maintenance
Adele Roth – Economic Development Manager
John Valle – Deputy Service Director
Jeff Walck – Motor Equipment
Mark Williamson – Economic Development/Media
John York – Law Department

Summit County:

Susan DeChant - Comprehensive Planning Administrator

Keep Akron Beautiful Task Force:

Paul Feezel
Don Mittiga
Terry Reagan
Vince Lobello
Pat Kunklier
Kevin Lockett
Kim Marcus

Affinity Consultants:

Nicholas C. Zingale, PhD, QEP, CHMM
President/CEO
Shireen V. Riazi
Assistant Project Manager

2009 Smart Green Committees

Smart Water & Wastewater
Mike McGlinchy, Pat Gsellman. Jeff Bronowski, John Thompson, Genny Hanna, Kathy Tannhof, Dan Joseph, Jim Culver, Cheryl Nero, Cindy Fink- Summit County Soil and Water Conservation District

Smart Energy & Emissions
Brad Beckert, John Valle, Gary Arman, Paul Barnett
Smart Materials & Solid Waste Management
Joe Asher, Michael Pickett, Pat Ashbrook, Fabian Lujan, Steve Batdorf, Dan Jones- SASWMA –[Summit/Akron Solid Waste Management District]

Smart Community Education & Promotion of Progress
Paula Davis, Paul Feezel, Pat Kunklier, Dave Lieberth, Mark Williamson, Genny Hanna, Joette Anderson/Dawn Meyers-Health Department, Shireen Riazi-Affinity Consultants, Yolanda Walker-SASWMA

Smart Transit
Jerry Egan, Dave Wilkerson, Dave Gasper, Michael Shumway, John Valle, Jeff Walck, Joe Asher, Curtis Baker-Akron Metropolitan Area Transportation Study, Kirt Conrad- METRO RTA

Smart Development
Mark Albrecht, Jerry Egan, Jim Hosbach, Kurt Mulhauser, Jeremiah Rowan,Ralph Thompson, Mark Watson, Susan DeChant-Summit County Dept of Community & Economic Development

Smart Growth Advisory Board:
Steve Stoner – BOMA (Building Owners and Management Association)
Carmine Torio - Home Builders Association
Sandy Naragon- Board of Realtors
Chris Norman - Crown Point Ecology Center

Smart Conservation of Natural Resources
Bill Hahn, Jon Malish, Pat Gsellman, Jerry Egan
Urban Forestry – Jon Malish, Bill Hahn, Joe Toth, Bob Reed
Riparian Corridor – Jerry Egan
Community Gardens – Jon Malish, Bill Hahn, Jerry Egan, Abraham Wescott, Kurt Mulhauser, Peggy Reid, Tom Quade, Melissa Adams- Keep Akron Beautiful [KAB], Paula Davis-KAB, Polly Kaczmarek-KAB
Highway Vegetation Management Plan
Jon Malish, Bill Hahn, Michelle DiFiore, Ralph Coletta

Smart Green Jobs
Adele Roth, Rita Weinberg, Heather Davis, Brent Hendren, Jim Weber
Mike LeHere- AGBA –Business, Entrepreneur, Innovation
Rick Rebadow/Gregg Cramer-Greater Akron Chamber –Regional ED
Tom Cargo-FirstMerit Bank - Banking
Carmine Torio-Akron HBA – Constru/RealEstate-private
Jerry Kipp-ODOD – Workforce and Talent
Leah Anglin-Walsh- ODOD- State ED Program Rep
Pat Kelly-FirstEnergy- Utilities
Joseph Rice, Jr. – ODOD- Business Service Rep
Kimberly Rice – ODOD – Business Service Rep
Ralph Sinistro – The Job Center

Community Education & Promotion of Progress

If you want to change your carbon footprint as a city employee, a resident of Akron or within your company you have to be willing to change your behavior. That is what this section of the Greenprint Plan is all about, finding programs, incentives and outreach campaigns that will convince citizens to change the way they consume goods, drive, eat and raise their families. It is a tall order and the nonprofit agency, Keep Akron Beautiful, has begun thinking about how to move the Greenprint Plan into the next phase of community engagement so the city has a chance of reaching the five, ten and fifteen year goals expressed in the Greenprint for Akron. Fortunately, the City of Akron is good at mobilizing public/private partnerships to accomplish civic goals, as documented in the third recognition award of Akron as an All American City in 2008. The Greenprint for Akron will need to rely on those partnerships to get the word out to schools, neighborhoods, businesses, industry and faith-based communities.

Referring to the 2006 U.S. Census Bureau - American Community Survey (ACS), it becomes apparent where the opportunities for behavioral change through education are in Akron, Ohio when compared to the level of greenhouse gas emissions in 2005 measured in the Greenprint for Akron ICLEI survey. The amount of electricity and gas used in Akron's residences needs to be lowered.

According to the 2006 census report, 56% of the houses in Akron were built before 1958, with 38% built in 1939 or earlier. One would assume that due to the age of the housing stock, citizens need to be replacing old appliances with EnergyStar appliances and increasing the quantity and quality of their home insulation, and improving the effectiveness of their windows to retain heat and air conditioning. Transit is another category where citizens need to re-examine their travel habits, since the ACS survey says that 82% of workers over 16 years of age drove a car, truck or van alone to and from work, with only 3% carpooling. These statistics represent future education and public awareness campaign opportunities targeted at Akronites.

Residents of Akron should be proud of the 2008 inventory of City of Akron environmental success stories. There are many more community examples of best practices nationwide that can be helpful when deciding which new measures to implement to help reduce our area's dependence on fossil fuels, and plan for a more sustainable use of our natural resources locally. So the stage is set and Akron is ready for some Smart Eco-Action!

We don't have to reinvent the wheel as far as environmental education is concerned in Akron, Ohio. The following is a snapshot of just a few of the organizations currently working to educate youth, residents and companies about making green choices.

Keep Akron Beautiful

A 501(c) 3 nonprofit agency, KAB is dedicated to improving the quality of life through beautification and responsible environmental management. Since 1981 this agency has been educating citizens on solid waste management issues, such as recycling, reducing, reusing, land filling and non-point pollution. The full-time Education Specialist, an employee of the Akron Public Schools, takes our environmental syllabus into Akron's public, private and charter school classrooms doing scheduled hands-on presentations. Graffiti and litter prevention education rounds out the agency's offerings. The syllabus is custom designed each year to address community environmental messages. Starting spring semester of 2009 the agency will be offering a module about energy efficiency for sixth grade students, from the Ohio Energy Project's Be E3 (Energy, Efficient, Education) Smart curriculum.

The agency teams with the City of Akron Engineering Department to celebrate Arbor Day, the last Friday of April, in all fourth grade classrooms to create an appreciation for living things. This involves Arbor Day classroom presentations, a slogan contest resulting in 3 prize tree plantings on school campuses and the distribution of 3,000 seedlings. The agency has sponsored continuing education teacher trainings on state and national environmental curriculums, conducted educator tours of Akron's solid waste system and offered contests like the book jacket design competition producing textbook covers for all middle school students. www.keepakronbeautiful.org or 330-375-2116

Summit Soil & Water Conservation District

The goal of the Summit Soil and Water Conservation District's (SSWCD) Education and Outreach Program is to bring the conservation message to the residents of Summit County. They believe that education is the key to an informed and involved citizenry and therefore they provide both educational information and activities including workshops, classroom presentations, seminars, contests, and "hands-on" experiences for the varied audiences in Summit County. These audiences include teachers, students and youth groups, business owners, landowners, developers, engineers, contractors, and community and civic leaders.

As the authors and promoters of countywide stream protection, water quality and erosion and sediment control legislation, the Summit SWCD performs a valuable service to the City of Akron and surrounding Summit County communities by assisting them with their National Pollutant Discharge Elimination System (NPDES) Phase II compliance with Ohio EPA mandated programs and Clean Water Act Amendments.

A variety of information and education materials are available from the Summit SWCD office. The SSWCD Staff is available to provide education presentations on a wide variety of natural resource issues including rain garden construction, water conservation, landscaping with native plants, erosion and sediment control practices, storm water quality, stream protection, lake management and more. For more information contact the Summit SWCD office at (330) 929-2871.2871 or www.summitswcd.org

Summit/Akron Solid Waste Management Authority

SASWMA mission is to turn trash into a resource, thereby avoiding burying this resource in landfills. SASWMA has developed the solutions to allow Summit County residents and businesses to participate and work towards reducing the amount of trash created within Summit County. Waste is bad business! Waste in

your dumpsters is a waste of money. SASWMA will assist you in identifying what resources (trash) you throw away and help your business institute new ways of managing waste. This assessment may result in saving you money on your trash bill. To schedule a free waste audit call 330.374.0383

The Authority can inform your school, business, or church group with a unique presentation that provides the tools needed to increase your group's knowledge and change their behavior. The presentations provide awareness of waste reduction and recycling opportunities and are free and designed to appeal to every audience. Call their office to schedule a free presentation, 330-374-0383. Change behavior starting at school by setting the stage, for future recyclers. Studies show that schools that model environmentally responsible behaviors will have long term impact on their students and the surrounding community. Increasing recycling and reducing waste is the mission of the "5R" Initiative. This program is an Ohio Academic Content Standard Program that serves all grade levels. www.saswma.org

City of Akron Health Department-Air Quality Division

Akron Regional Air Quality Management District, as a division of the Akron Health Department, is a contractual agent of the Ohio Environmental Protection Agency for Air Quality. As a Local Air Agency, we have required work of monitoring, inspecting and permitting of air emission sources throughout Medina, Summit and Portage Counties. An additional service we provide is public education. Our public education varies in scope from print materials delivered to regulated industry and interested parties to community and classroom presentations. Topics that we routinely cover are; sources of air pollution, indoor air quality, health impacts of air pollution, and topics that have had recent media coverage.

Our staff can be found at various community health fairs and events throughout the tri-county region. We have been in classrooms in Medina and Portage Counties in the past 2 school years. Our office regularly participates in the Akron Aeros Education Days that serve thousands of school aged children from Northern Ohio. We are continually looking for new avenues to reach the public with information they want and need. Education Specialist 330-375-2480, X3393.

Cuyahoga Valley National Park Association

Cuyahoga Valley National Park offers a diverse array of activities. Park visitors can hike one of the many trails, bike the towpath, enjoy equestrian trails, ride the train offered by Cuyahoga Valley Scenic Railroad, explore visitor centers or attend a concert. The park provides programs for a variety of interests, while protecting 33,000 acres of diverse habitat.

Cuyahoga Valley National Park Association (CVNPA) is the park's nonprofit friends group. CVNPA operates Cuyahoga Valley Environmental Education Center, manages meeting and event spaces within the park, and offers two retail outlets that serve park visitors (Trail Mix and Park Place in Peninsula), assists with cultural arts activities, manages the park's volunteer program and raises funds to support the park. The Cuyahoga Valley Photographic Society serves area nature photographers and is a part of CVNPA. Special activities for children include Junior Ranger programs, summer camps and school programs.

Ohio Energy Project

Keep Akron Beautiful plans to work in conjunction with the Ohio Energy Project (OEP), an award-winning 501 (c) 3 nonprofit organization established in 1984 by professional educators, to educate Akron's sixth grade youth about:

Sources, forms and transformations of energy
Electricity
Energy efficiency
Environmental and economic impacts of energy use

Ohio Energy Project programs and materials utilize innovative, hands-on techniques and are correlated to the Ohio Academic Content Standards. OEP has been a recipient of past awards from the U.S. Department of Energy and has received three Program of the Year awards from NEED (National Energy Education Development). OEP has been featured in the Ohio Energy Strategy Report of the Public Utilities Commission of Ohio as the recommended energy education option in Ohio. They offer a variety of programs to schools and educators which include: Youth Energy Summits, workshops and fairs, professional development, and statewide energy sources tours. www.ohioenergy.org

Akron Zoological Park

The Akron Zoo, where kids love to learn, is dedicated to providing outstanding environmental and conservation based educational opportunities in a variety of settings. The zoo offers interactive programs and workshops, you can also travel to special areas of the zoo on a behind the scenes tour. Try spending the night at the zoo and attend a Snooze at the Zoo program or bring the little ones for early childhood experiences. ZooCamp is a great opportunity to learn while having fun.

If you can't make it to the zoo, let the zoo come to you in our ZooMobile Outreach programs, which provides hands-on activities along with our zoo animal ambassadors. We also offer distance learning programs for those groups who may be too far away. To find out more about the programs we offer visit our web site at www.akronzoo.org or contact our education department at 330-375-2550 ext 8973.

METRO Parks

Programs for Students & Educators

Guided Nature Walks for School Groups A series of nature walks is offered by naturalists and volunteers at F.A. Seiberling Nature Realm for Summit County students (grades K-5). Wildlife and Their Homes and Amazing Adaptations are two examples of the educational nature programs available to complement school curricula. Resources for Teacher-Guided Hikes Resource packets and backpacks loaded with exploration aides are available for loan to teachers leading their own hikes at F.A. Seiberling Nature Realm. Educator Resource Kits Four different resource kits are available to Summit County educators: Ponds and Wetlands, Ohio Canal History, Ohio Forests and Tropical Forests.Ranger Safety Programs for Kids: There are many ways kids can stay safe in the

Metro Parks, like staying on trails and always hiking with a friend. Students (grades 2-5) can learn more about being safe outdoors with an in-school visit by a uniformed Metro Parks ranger. Topics include summer and winter safety techniques, and students receive Junior Ranger badges and other materials. To schedule a visit, call 330-865-8052.

Scouting Programs: Naturalists and volunteers work with scout troops and dens to fulfill many of the nature-related badge requirements. Three different scout programs, designed for specific levels or ranks, are repeated September through May. Programs are presented on weekdays (late afternoons) and some weekends. Most programs are one and a half hours long and are held outdoors. Limit: 20 scouts per program. Call 330-865-8065 to register for program-specific callback lists. Programs are filled on a first-registered, first-served basis. Scouts can earn nature-related badges with help from Metro Parks naturalists and volunteers. 330-867-5511, www.summitmetroparks.org

Ohio Environmental Protection Agency

This governmental agency offers many environmental programs and media on a wide-range of topics, as well as program development funding opportunities. www.epa.state.oh.us

The City's Green Ribbon Panel has been involved with a few public awareness activities to get the Greenprint for Akron rolling this year. Besides creating a logo to identify our efforts we have also created a banner to take to informational booths, like the Green Energy Expo and the Learn Green, Live Green Expos at the J. S. Knight Center. Keep Akron Beautiful has added a Greenprint for Akron informational page to their nonprofit website, as will the City of Akron website in the future. An operational tracking website (ehsOnline) is being custom designed to assist city managers in reporting progress, updating goals and monitoring success internally as we start to receive funding and implement Plan strategies in the short, mid and long term.

The 2008/9 Recycling and Community Events Calendars, mailed to all City of Akron households in December started to explain to residents "it's easy being green"! Monthly tips and helpful resources get everyone thinking about what they can do to help the city be more sustainable. Future plans include continuing to use the mayor's office City Magazine publication to keep the citizenry informed about the Greenprint Plan strategic planning progress, and how they can be part of the eco-action required to lessen our residential, commercial and industrial carbon footprint here in Akron.

Once again, we are not starting from ground-zero, there are many active environmental groups in the greater Akron area helping to recruit volunteers, lobby for green legislation and creating public awareness of issues that affect our environment. Here is a sample listing of the city's partners.

Networking Organizations

Environmental Akron, University of Akron

Founded in 2007, Environmental Akron is an eco-friendly student organization focused on uniting like-minded students to promote awareness of environmental issues on and off-campus. Working with the Blue, Gold, & Green Committee (composed of administration and faculty), Environmental Akron plays a crucial role in the formalization of an on-campus recycling program.

In addition to hosting eco-friendly speakers, Environmental Akron has organized recycling at sporting events and site cleanups near campus.

Future goals include a solar stage for Earth Day 2009 and maintaining the UA cardboard recycling program. Visit at www.enviroakron.org for up-to-date information.

Friends of the Crooked River

Established in 1990, works for the preservation of the Cuyahoga River, located in the Cuyahoga Valley National Park system. They have produced an award-winning RiverGuide, a curriculum handbook for educators on the Cuyahoga River. Volunteers can learn about the issues facing the river and its bright future. They provide public awareness opportunities for the public, like River Day. www.cuyahogariver.net or 330-666-4026/330-657-2055.

Sierra Club-Portage Trail Group

Founded in 1892, the Sierra Club is the world's oldest and largest environmental conservation organization. Locally, the Portage Trail Group has over 2,000 members that focus grass-roots education and advocacy efforts on energy conservation, pollution, preservation of natural resources and species habitat. The Group's Cool Cities program, including the annual LightsOut campaign, focuses specifically on urban climate change initiatives and what governments and citizens can to do reduce their environmental footprint. Monthly membership meetings are held on the 3rd Tuesday are open to the public. Programs include a wide range of environmental education, wildlife and outdoor topics. Visit: www.sierraptg.org

E4S - Entrepreneurs for Sustainability

E4S is a diverse network of over 5000 leaders who are putting the principles of sustainability into action in Northeast Ohio to crate prosperity and total community health. Building a sustainable economy starts one business at a time, one project at a time. To support these efforts E4S provides network connections, and sustainable skills learning programs and resources. They provide a range of implementation services for individual companies and industry-focused development projects, including their Sustainability Implementation (SI) Workshops. In recent years they expanded their E4S network by holding Akron Network events to create a new hub to compliment their growing Cleveland membership network. www.e4s.org or 216-451-7755

Green Energy Ohio-Cleveland Office

Green Energy Ohio provides information and assistance to homeowners about clean energy alternatives like adopting energy efficiency measures and renewable energy systems for their homes. The staff offers a public education website, workshops, and conferences. Green Energy supports adoption of green power sources as part of their daily energy consumption. 216-526-5545 or www.GreenEnergyOhio.org

Ohio Citizen Action

Ohio Citizen Action is the state's largest environmental organization. The organization's campaigns offer practical ways for members to make the making phone calls, talking to neighbors, or speaking out at community meetings. 614-985-6131 or www.ohiocitizen.org

Public Awareness Campaigns

LightsOut

The Sierra Club, Portage Trail, introduced this campaign to the Akron community on Earth Day 2008. The international campaign designed to curb non-essential energy use asked residents, government and commercial businesses to turnoff their lights between 8-9 p.m.

Dump the Pump

Akron's Metro RTA launched a week-long event to get people out of their cars and onto public transportation in April 2008. Riders got free gifts and one day could ride for FREE. Bus ridership was already up due to increased gas costs and this event got everyone clamoring for bus schedules.

Clean Up Akron Week/The Great American Cleanup™

Each spring this nonprofit mobilizes thousands of citizens to register to clean public sites in Akron. The agency with help from their national organization, Keep America Beautiful, Inc., provides all the supplies and invites the volunteers of all ages and zip codes to an appreciation picnic at the Akron Zoo to say thank you for their time to pick up litter and illegal dumping.

RiverDay-Cuyahoga River Cleanup

A river cleanup coordinated by The Friends of the Crooked River and their sponsors is in its 17th year of raising awareness and understanding of the policies and practices that improve water quality and wildlife habitat in the watershed. Volunteers can attend informative open houses and talks or pitch in to pull debris from the river or invasive plants from the river banks.

Ohio RideShare

AMATS (Akron Metropolitan Area Transportation Study) partnered in 2007 tointroduce a computer-matching service for potential carpool partners. The three agencies responsible for transportation planning in northeast Ohio, sponsors this service for residents of 13 counties in Northeast Ohio.

Action Area: Smart Community Education & Promotion of Progress.

Goal 1: Educate the government and community about strategies for reducing global warming and conserving resources.

Objective 1: The city becomes a model and acts as a catalyst for professional associations, business and industry to reduce global warming and conserve natural resources.

	Strategy	Action
1.1.1	Provide a physical example of green building, as a showcase of green building practices	1. Retrofit the Municipal Building to be LEED certified, followed by Municipal Service center, Central Service Facility, Copley Road Service Depot, and/or Harold K. Stubbs Bldg. (or build new)
1.1.2	Promote and support office place recycling and sustainability programming in Akron	1. Help E4S to promote monthly forums of members meeting in downtown Akron 2. Working partnership with Downtown Akron Partnership (DAP), Summit-Akron Solid Waste Management Authority (SASWMA) to facilitate recycling within the SID through a Phase I (restaurants) & II (office buildings) 3. Explore a partnership with Summit County to create a web-based commercial business site to assist offices in becoming sustainable. May evolve into a competitive, certification program.
1.1.3	Establish The Greenprint for Akron annual awards program to showcase sustainable practices and entrepreneurship within the Akron business community	1. Host a media event to present awards in categories for organizations, individuals and businesses. 2. Explore the possibility of working with the Summit County Green team and Policy Task Force to make this a county-wide recognition program.
1.1.4	Assist the Canal Park Stadium in the expansion of their recycling program in-house, to involve the baseball fans	1. Assemble a team to help the stadium management to move beyond mixed office paper and corrugated to recycling to bottles, cans and plastics
1.1.5	Identify training opportunities for Akron businesses on energy efficiency	1. Promote E4S-SI trainings 2. EnergyStar Portfolio Manager
1.1.6	Expand the Keep Akron Beautiful loan program from portable trash receptacles to prevent litter to recycling receptacles for plastic beverage bottles	1. Write a grant to cover the collection receptacles and liners that would be loaned out to Akron groups hosting age civic events to encourage recycling habits
1.1.7	Keep Akron Beautiful staff member serves on Community Gardening Committee for City of Akron	1. Attend meetings, consult and train as needed

Objective 2: Educate City of Akron employees and other jurisdictions about reducing global warming pollution and conserving natural resources

	Strategy	Action
1.2.1	Create an incentive system for City employees to offer their energy saving ideas	1. Set a reward system of recognition for Department Heads, Managers, Supervisors and Associates with the new ideas that save the most energy and money
1.2.2	Select and purchase a training module on the importance of climate protection activities to show to all new City of Akron employees	1. Use during new hire orientations and as a continuing education activity, similar to safety training exercises currently done
1.2.3	Do a recycling audit of all city of Akron buildings to assess the level and success of in-house recycling. Move to a better tracking system building by building and set up competitions between employees	1. Monitor in-house recycling program statistics and set goals for increasing quantity of recyclables collected. Explore new contract for mixed paper revenue in 2010
1.2.4	Support in-house training of green practices of specific Eco-Smart strategies and actions so they can be implemented	1. Identify training sources and distribute to city employees who would benefit

Objective 3: Reach Akron's youth about the importance of reducing global warming pollution

	Strategy	Action
1.3.1	Facilitate the use of Be E3 Smart hands-on modules for classroom presentations to Akron's public, private and charter classrooms on energy efficiency	1. Developed a hands-on 40 minute module to teach energy efficiency using the Ohio Energy Project curriculum and target 6th grade teachers and their students. Distributed over 1,700 Home Energy Kits for all APS 6th grade families 2. Write a competitive grant to repeat the curriculum and Home Energy Kit distribution for all Public, private and charter school 6th graders spring semester 2010 3. Explore opportunities to assist Summit County Economic Development/SASWMA in writing a similar grant to cover all 6th graders in Summit County
1.3.2	Promote secondary schools energy efficiency curriculum through the use of 2 energy bikes now in the public schools. Purchase more bikes to expand the program	1. Write a grant to purchase more bikes and to conduct training sessions for secondary science teachers in public, private and charter schools
1.3.3	Send Akron secondary teachers to the summer Ohio Energy Sources Tour	1. Write more grants to send teachers on this state of Ohio tour
1.3.4	Engage the Akron Public Schools Administration in discussions to set up a system-wide recycling program	1. Assemble the necessary parties to begin meeting to find a cost-effective solution for recycling selected commodities across the district

	Strategy	1. Action
1.3.5	Promote student volunteerism to complete the actions in each of the 8 Smart Action Areas	1. Create student Environmental Clubs to work with school building administration to set building goals, plan action and monitor success
1.3.6	Continue Arbor Day observation in the public/private/charter schools	1. Distributing 2,500 seedlings to all Akron 4th graders.
1.3.7	ArtsLift Summer 2009 Project	1. Promote the rain Barrel art and education project for 10+ youth and the subsequent auction of their work. Offer a public Rain Barrel Clinic

GOAL 2: Create a Greenprint Plan for Akron

Objective 1: Providing opportunities for the community to become engaged to reach The Greenprint for Akron goal

	Strategy	Action
2.1.1	The Greenprint Task Force of the Keep Akron Beautiful Board of Directors bringing together a community partner group to consult on the Greenprint plan	1. Make a complete list of partners and ask representatives to serve to a citizen-work group
2.1.2	Write a Request for Proposals for an effective public relations strategy to promote and educate the behavior changes required to have an effective Greenprint for Akron	1. Write a RFP and select an agency to assist the Board of Directors with a multi-media plan
2.1.3	Engage the services of a environmental consultant to assist with the writing of a professional sustainability plan that will have achievable goals once the ICLEI benchmarking is done and the percentages of reduction set.	1. Work with Affinity Consultants
2.1.4	Create a tracking and measurement system to monitor City progress towards Greenprint Plan targets	1. Educate Green Ribbon Panel members on the ehsOnline site to update regularly Smart areas 2. Plan to re-do the ICLEI Survey to gauge progress towards GHG reduction targets 3. Work with City Environmental Engineers to assign estimated greenhouse gas (GHG) reductions to measures taken by the city/ community since 2005 baseline year (2006-2009) 4. Work with City Environmental Engineers to assign GHG reduction figures to proposed action items in the Greenprint Plan to assist with prioritizing

	Strategy	Action
2.1.5	Create opportunities for public dialogue about the written Greenprint plan: goals, objectives, strategies and actions	1. Present first draft Plan to Mayors/Service Directors Office 2. Review draft plan with Akron City Council 3. Plan to post draft plan, calendars of meetings, events at ehsOnline site 4. Have a community calendar of activities related to each Action Area 5. Seek support from community groups and Greenprint database

Goal 3: Promote progress towards the Greenprint for Akron goals and track targeted greenhouse gas reductions.

Objective 1: Utilize ehsOnline to plan and share Greenprint Plan components

	Strategy	Action
3.1.1	Update narratives, successes and template actions plans once a month	1. Train Green Ribbon Panel members to effectively use ehsOnline.

Objective 2: Keep Akron Beautiful coordinates Green Ribbon Panel/Greenprint Plan

	Strategy	Action
3.2.1	Facilitate City of Akron Green Ribbon Panel	1. Continue to meet regularly to share and hear speakers. 2. Meet with Smart Area Point People to set City policy and priorities.
3.2.2	Produce annual scorecard of Greenprint progress toward goals	1. Plan to re-do the ICLEI Survey to gauge progress towards GHG reduction targets 2. Work with City Environmental Engineers to assign estimated greehouse gas (GHG) reductions to measures taken by the city/community since 2005 baseline year (2--6-2009) 3. Work with City Environmental Engineers to assign estimated greenhouse gas (GHG) reduction figures to proposed action items in the Greenprint Plan to assist with prioritizing 4. Explore innovative system of tracking/ measurement using GIS system per Affinity Consultants

Smart Conservation of Natural Resources

The City of Akron has committed to preserve and reuse its natural waterways and existing open space as exhibited by the Ohio and Erie National Heritage Canal Corridor (OENHCC), Cascade Valley Park (a 1,700-acre park abutting the Ohio Canal) and Rail to Trails initiatives. The Corridor represents both a recreational amenity, as well as an economic stimulus for development. Recreational uses of the multi-purpose trail exceed 150,000 annually. The City anticipates this user estimate will exceed 300,000 persons now that we are nearing the completion of the 18 trail miles within the City of Akron. Quality of life studies indicate that natural resources and recreational amenities such as the OENHCC, enhance the historic, social and economic vitality of a city. Rebecca Ryan, a consultant for Imagine Akron 2025, and Richard Florida in his book, "The Rise of the Creative Class", remind us of how important quality of life is in the retention and attraction of the younger work force. Akron continues to provide a well-balanced and attractive physical environment as a key piece of their urban development strategy.

The Cascade Locks Park lies in the north quadrant of downtown Akron. The Cascade Locks Park Association has developed a master plan for the Cascade Locks Historic District. This plan calls for the redevelopment of old commercial and industrial parcels adjacent to the canal, which have the potential for mixed use development, including residential, retail, recreational and entertainment.

The MetroParks serving Summit County began with a small triangular gift of land, Courtney Park, marked today in the Merriman Valley with bronze relief on a boulder at the intersection of North Portage Path and Merriman Road. Today, Metro Parks manages more than 9,000 acres, including 13 developed parks, six conservation areas and more than 120 miles of trails, with 16 miles of the Ohio & Erie Canal Towpath Trail. Annual attendance averages over 4 million visitors.

In addition, the City of Akron's Public Works Parks Division manages and maintains 130 named city parks, many of them small pocket parks serving neighborhoods. The City is responsible for maintaining 74 city sports fields, 22 tennis/basketball courts and two lit baseball fields: Firestone Stadium and Summit Lake. Not to mention the two city-owned and operated golf courses, Good Park and Mud Run, a First Tee course, covering 244 acres. The City also has the award-winning Akron Zoological Park on one acre in the heart of the city, drawing 262,000 visitors in 2007.

A non-profit agency, Keep Akron Beautiful, has managed public land beautification for the city for close to three decades, providing over 40 large, professionally designed and maintained floral landscapes, called Flowerscapes. The concept of planting pride moved out to public lands in neighborhoods in the form of volunteer run beautification gardens called Adopt-A-Sites. There are over 79 sites citywide gardened by public housing residents, schools, civic groups, and neighborhood block watch groups; all coordinated by the Keep America Beautiful, Inc. affiliate.

The University of Akron has completed a $300 million campus expansion that involved planting 2,800 new trees which absorb 14 tons of carbon dioxide per year. The visible change to the urban campus will continue as the university plans to plant 300-400 more trees each year. The University Park Association, a non-profit organization, received a $10 million John S. Knight grant to develop the area around the university, also increasing green space which helps reduce the urban heat island effect.

Cities are impacted by global warming by increasing and prolonged heat waves, which can be magnified in an urban setting of pavement and rooftops. Secondly, the issue of air pollution often plagues cities, due to the burning of fossil fuels for energy production, industrial processes or powering vehicles. In hot urban centers, higher temperatures can intensify the effects of ground-level ozone formation. By enhancing green space and increasing the urban canopy by planting all available planting sites, cities are able to reduce the heat island effect and pollution associated with it. The City of Akron has earned the Trees City USA award for thirteen years. This award certifies that a city has a tree department, a tree care ordinance, and a tree commission along with an annual budget of at least $2 per capita and supports an Arbor Day Observance and Proclamation.

In Akron, the City's arborists work with Keep Akron Beautiful to educate all city fourth graders about why trees matter. The importance of tree conservation is taught through classroom presentations and a slogan contest. Slogan contest winners are rewarded by private sector tree donations, which the class plants on their campuses. Through generous annual corporate donations, each fourth grader in the city has taken home a seedling to plant and nurture every year for over 25 years.

The City is in the process of developing a comprehensive computer managed tree inventory and management plan. This plan will quantify and aid in tree planting goals to improve the level of particulate matter and increase the percentage of oxygen we breathe. Increased trees will also reduce the amount of runoff that goes into our storm water system and reduce erosion. The use of I-Tree, a computer model program developed by The Davey Tree Institute and The United States Forest Service, will aid in the management of our urban forest. City ordinances and tree protection policies are currently being reviewed to preserve our existing urban forest.

In August 2008, Mayor Don Plusquellic with the support of the Ohio Department of Transportation, announced a reduced mowing program for the expressway system in Akron. This innovative concept will lower energy costs, minimize labor costs, reduce erosion from mowing operations and improve roadside aesthetics. The plan will include mass plantings, native grasses in all infield areas, and along ramps and access roads. The key will be to create a sustainable plan that Akron's highway maintenance and litter collection crews can implement. Akron is unique in that the city maintains the public expressways, within the corporate limit, contractually with the Ohio Department of Transportation. Another first for Akron for green expressway solutions occurred in 2002 when the Mayor sought to pilot vegetative sound walls to help abate residential noise levels along the expressways.

Action Area: Smart Conservation of Natural Resources

Goal 1: Preserve and Improve the Urban Forest for Future Generations

Objective 1: Inform the public of the many benefits of trees and how they enhance the community's quality of life

	Strategy	Action
1.1.1	Formulate a sustainable mission statement and public tree policy with an emphasis on public safety, tree preservation, and an accelerated tree planting program.	1. Implement the Comprehensive Street Tree Policy to deal with sewer and water laterals, raised sidewalks, and all other utilities in the public right-of-way. 2. Improve the canopy density by preserving existing trees through a root pruning program to prevent damage to infrastructure. 3. Create an Urban Forestry Manual which will define best practice for a blue print for tree planting, maintenance, and selection.
1.1.2	Update the City of Akron's Tree Ordinances	1. Create a Nuisance Tree ordinance.
1.1.3	Expand the Tree Planting Program by incorporating bare root material.	1. Initiate a volunteer tree planting Engineering program.

Objective 2: Adopt additional end uses for urban timber to stimulate the arts, employment, and economic opportunities

	Strategy	Action
1.2.1	Stockpile and advertise timber resources.	1. Sell timber to Akron Public School wood shop and art classes. 2. Sell timber to local woodworkers (furniture, cabinet shops, artisans). 3. Offer firewood sales to the public. 4. Offer mulch sales or donate to the public.

Objective 3: Become a national leader in the area of Urban Forestry.

	Strategy	Action
1.3.1	Increase the quantity of trees planted in the Street Tree Planting Program.	1. Increase the new tree planting by an additional 1,000 trees per year. This will be a combination of balled and burlaped and bare root.
1.3.2	Update the street tree inventory and maintain it for all City of Akron Departmental uses through the COA GIS system.	1. Hire 1 Engineering Associate Co-ops for the summer months. 2. Partner with Neighborhood Garden Clubs to complete the inventory (i.e.. Ward 7 Pilot Program).
1.3.3	Utilize rubberized sidewalks in select locations and devise other solutions for safe pedestrian walkways.	1. Set the criteria for such an improvement and create a pilot program.

Objective 4: Diversify the urban forest by removing Ash trees vulnerable to the Emerald Ash Borer infestation.

	Strategy	Action
1.4.1	1. Formulate a 10 year removal and planting plan to mitigate Ash trees from the urban forest.	1. Inventory all streets where Ash trees are know to exist and measure the size, DBH (Diameter at Breast Height)

Goal 2: Preserve and conserve agricultural lands, wet lands, and natural areas.

Objective 1: Suppress / slow urban sprawl.

	Strategy	Action
2.1.1	Protect the limited agricultural land use within the city limits	1. Identification and designation of suitable agricultural land.

Objective 2: Promote local food production on vacant city property where conditions are conducive.

	Strategy	Action
2.2.1	Cultivate local nonprofits and neighborhood organizations to provide beauty or function in a neighborhood and provide a plan to maintain the designated land use.	1. Support the use of city water 2. Identify vacant city lots for this purpose. 3. Simplify the process for allowing permission to work the land. 4. Provide grant programs.

Objective 3: Conserve wetlands and maintain flood plains

	Strategy	Action
2.3.1	Identify and designate areas.	1. Mapping and soil sampling.

Objective 4: Expand urban green spaces at Locks 1,2,3

	Strategy	Action
2.4.1	Design appropriate landscape solutions	1. Install and maintain appropriate plant material

Goal 3: Preserve and improve water and air quality so future generations can thrive.

Objective 1: Conserve soil from wind and water erosion.

	Strategy	Action
3.1.1	Formulate policy to minimize and or prevent soil erosion.	1. Provide educational materials and seminars.

Objective 2: Minimize the use of fertilizers and pesticides.

	Strategy	Action
3.2.1	Formalize policy and legislation to minimize to use of fertilizers and pesticides.	1. Provide viable alternatives and educational opportunities for the public and commercial sectors.

Objective 3: Promote air filtration and oxygenation.

	Strategy	Action
3.3.1	Set policy and legislation for industrial and commercial air scrubbers and vegetative plantings.	1. Provide educational materials and seminars.

Objective 4: Prepare a draft riparian corridor protection ordinance for future implementation by the City of Akron

	Strategy	Action
3.4.1	Research riparian corridor protection legislation implemented by other Ohio governmental units and prepare initial draft of ordinance for review.	1. Educate Administration and Council about the benefits of a riparian corridor protection ordinance with the assistance of the Summit/ Akron Soil and Water Conservation District.
3.4.2	Determine set backs and restrictions to be included in the draft legislation.	1. Map all streams and identify conflicts with riparian corridor.
3.4.3	Finalize draft riparian corridor protection ordinance for review by Administration.	1. Educate the city employees that will work with the public regarding this legislation through a seminar. 2. Develop educational and public awareness materials for the public.

Goal 4: Conserve public green space for future health, safety, and welfare for the public and community at large.

Objective 1: Preserve public land

	Strategy	Action
4.1.1	Set policy for open space based on population density.	1. Identification and designation of present open space density.

Objective 2: Conserve expressway berms, slopes, and infields

	Strategy	Action
4.2.1	Set policy and define best practices.	1. Update the Highway Vegetation Management Plan 2. Implementation the Highway Vegetation Management Plan. 3. GIS all mowed areas of the expressway system. 4. Create wetland areas in the cloverleaf infields on the expressway system. 5. Offer in-house training for Public Works crews that do the maintenance.

Smart Development

Akron covers 62 square miles, which has permitted effective management resulting in the City being designated as a three-time winner of the All American City award, most recently awarded in 2008. Akron is home to approximately 200,000 persons based upon the 2006 US census estimate. As of the last census, Akron was home to 39% of Summit County's population. One of the City's primary objectives is to provide quality housing opportunities through new housing starts and rehabilitation of existing residential units that can extend the structures useful life.

As a City with less than 2% vacant land, it is essential that smart development initiatives are pursued in order to efficiently use our land resources. These smart growth initiatives involve brownfield recapture, existing neighborhood revitalization, historic preservation and creating new neighborhoods on recaptured land. The city's land resources are complimented by an excellent transportation system minimizing traffic congestion and affording easy access from close-in neighborhoods.

Akron has pursued reinvention of its economy since 1980, transitioning from a manufacturing economy based upon the rubber industry into a diverse manufacturing and knowledge based economy. One of its highest priorities is to retain and expand its industrial and economic base by growing and attracting new companies. Akron has almost 20% of its workforce engaged in manufacturing activity and has been particularly successful in expanding its polymer and plastics industries with 22% of its manufacturing work force in these fields. Other economic clusters include: metalworking, controls and instrumentation, specialty chemicals, information systems, and biomedical.

This economic development focus requires availability of developable land, land re-utilization through brownfield recapture for new developments, land banking and encouraging high density living by endorsing in-fill development. The City must continue to offer clean vacant developable land so existing businesses can expand and attract new industrial investment. Without land, job creation cannot occur.

One of the reasons Akron's economic profile has remained economically viable has been through pro-active in accommodating business growth in all sectors of the economy. Akron has been a leader in Ohio in taking the lead as economic developers in our city's economic resurgence. There are many impressive examples or re-development: The University of Akron's $300 million Landscape for Learning expansion of their campus, the new biomedical corridor; the University Park Alliance wherein the neighborhoods around the University are revitalized, The Goodyear Tire & Rubber Company retention of their world headquarters in Akron creating an industrial park, the new Bridgestone-Firestone North American Technical Center, the expansion of Infocision and Sterling, Inc., the success stories of the Akron Global Business Accelerator(a technology driven business incubator) and the downtown redevelopment of the Lock 3 and Lock 4 mixed-use residential and retail block along the Ohio-Erie Canal Corridor.

As the heart of the region and the largest employment center, downtown Akron, with over 30,000 employees, continues to evolve as a center for commerce, culture, recreation, medicine, and education. Downtown investment of over $1 billion has occurred over the past 10 years.

The City is committed to preserve its natural waterways and existing open space. An excellent example of this commitment to open space is the development of the Ohio and Erie National Heritage Canal Corridor, which is a multi-purpose trail extending 110 miles from Cleveland to Zoar. Akron is fortunate to have already completed the 16 miles within its corporate limits. The City has embarked on an aggressive bicycle facilities network to encourage the use of the bicycle for transportation. These open space and trail improvements represent the quality of life investments that all residents and in particular, the younger population, desire in their communities.

Sustainable development initiatives are also being pursued which reflect the practices of efficient land uses, improved transportation practices, sustainable urban design and pedestrian-friendly walkable communities. Through smart growth practices, Akron is promoting efficient zoning and land use standards to accommodate in-town living necessiting the updating of parking standards and changing codes for parking requirements.

The City is working collaboratively both at the State and regional level to address urban sprawl. Current initiatives include Joint Economic Development Districts and regional tax-sharing as well as review of regional transportation policies in cooperation with the Akron Metropolitan Areas Transportation Study.

Sustainable development is just taking hold in Akron. It represents the next logical step that is necessary for Akron to evolve into a comfortable, efficient, and desirable place to live, work, and play.

Action Area: Smart Development

Goal 1: Neighborhood Revitalization

Objective 1: Preserve existing neighborhoods

	Strategy	Action
1.1.1	Continue concentrated neighborhood rehabilitation program.	1. Identify new neighborhoods for housing rehabilitation investment
1.1.2	Preserve historic neighborhoods/districts	1. Identify historic districts including downtown 2. Establish incentives for preservation of historic structures
1.1.3	Remove blighting, deteriorated structures from neighborhoods	1. Continue Waiver Demolition program. 2. Continue aggressive housing code enforcement.
1.1.4	Promote maintenance of existing housing	1. Initiate an Inspection-at-time-of-Sale program, concentrating on exterior conditions and internal mechanicals 2. Continue housing code enforcement activity. Use new Dollar program to promote home ownership.
1.1.5	Develop necessary retail services within adequate proximity of neighborhoods.	1. Identify desired services and typical market area. 2. Inventory neighborhoods for distribution of goods and services. 3. Encourage new development where goods/services lacking.
1.1.6	Provide recreation, open space and civic services in proximity of all neighborhoods	1. Inventory neighborhoods for distribution of recreation, open space and civic services / develop new City park master plan 2. Encourage new development where these are lacking

Objective 2: Create New Housing in Neighborhoods

	Strategy	Action
1.2.1	New in-fill housing existing neighborhoods	1. Continue land assembly through Land Reutilization Program, special HUD programs, and selective acquisition. 2. Sell land for new construction of single family houses through non-profit and for profit developers on acquired City parcels. 3. Encourage new construction on demolished home sites. 4. Initiate Residential Tax Abatement Program for new housing.
1.2.2	Require new subdivisions to meet LEED-ND (Neighborhood Development) standards	1. Revise Subdivision Regulations to incorporate LEED-ND standards
1.2.3	Develop new housing through urban renewal and redevelopment activity.	1. Select new areas for redevelopment around the central core of the City that meet LEED-ND standards.

1.2.4	Establish energy efficiency standards for housing projects that include City investment.	1. Identify guidelines for use of Energy Star products, recycled product content, construction practice. Alternative: require new developments to meet LEED certified requirements
1.2.5	Encourage the development of smaller sized housing options to respond to changes in the household size and energy costs	1. Identify new housing design standards reflective of the changing market place.

Goal 2: Building Regulations and Standards

Objective 1: Improve Permitting Process

	Strategy	Action
2.1.1	Incorporate US Green Building Standards into Building Code	1. Review USGB standards and analyze how they could be incorporated into the existing building code
2.1.2	Examine accelerated permitting for green projects	1. Adopt an accelerated permitting review and approval system for green projects.

Objective 2: Make Building Standards Sustainable

	Strategy	Action
2.2.1	Examine building code for inclusion of new energy conservation standards from State and Federal govt.	1. If State of Ohio adopts new energy conservation standards, they should be incorporated into Akron Building code
2.2.2	Examine ways to reduce storm water runoff and reduce amount of hard surface areas in city	1. Determine ways to require less hard-surfaced parking, e.g., use permeable materials and evaluate use of green roofs
2.2.3	Examine alternative methods of landscaping to reduce energy consumption for new construction and redevelopment	1. Implement landscaping requirements including more trees for shade and water resistant species of scrubs and trees

Objective 3: Educate Green Builders Stakeholder Groups

	Strategy	Action
2.3.1	Interface with local, state and national building organizations on green initiatives.	1. Contact organizations such as NAIHOP, HBA, & BOMA
2.3.2	Establish program of educational information for dissemination to stakeholder groups	1. Assemble LEED and other Green educational material. 2. Contact other cities outside Akron to identify relevant initiatives and information for incorporation.
2.3.3	Educate local builders to new green and sustainable building standards for energy and green practices	1. Hold seminars and develop promotional literature for contractors, builders, and homeowners
2.3.4	Evaluate financial incentives for undertaking energy and green initiatives	1. Research how other cities are offering financial inducements

Goal 3: Land Reutilization

Objective 1: Recapture Brownfield for reuse

	Strategy	Action
3.1.1	Recapture underutilized brownfields within the City to create more developable land and buildings	1. Identify underutilized buildings and vacant land parcels that are impacted by contaminations.
3.1.2	Recapture and reuse vacant gas stations	1. Inventory and document ownership of vacant gas stations.
3.1.3	Recapture landfills and commercial demolition dump sites	1. Seek federal and state assistance for purchase and remediation
3.1.3	Pursue removal of vacant and deteriorated buildings	1. Survey and inspect vacant and deteriorating commercial and industrial buildings and seek legal remedies for removal
3.1.4	Create a Brownfield inventory program	1. Develop a on-going inventory program for identifying potential brownfields

Objective 2: Promote Land banking and In-fill Development

	Strategy	Action
3.2.1	Promote use of land banking to assemble vacant land for redevelopment	1. Continue to budget annual $ for land bank purchases
3.2.2	Promote in-fill development	1. Identify vacant land parcels that support development
3.2.3	Seek select donations/acquisitions of properties either in foreclosure or sheriff's sale	1. Implement policies directed at tracking available properties
3.2.4	Seek donations of property through the waiver demolition program	1. Implement policies to seek donation as part of waiver demolition permit.
3.2.5	Use select urban renewal and redevelopment plans for land assemble to encourage higher densities development.	1. As needed implement urban renewal and redevelopment plans that provide vehicle for land assemble.

Objective 3: Establish energy standards for City assists projects

	Strategy	Action
3.3.1	Establish energy efficiency standards such as LEED standards for all ED projects using City assistance	1. Require all development projects that are utilizing city financial assistance to use LEED / green building standards in their construction projects

Goal 4: Land Development Standards

Objective 1: Promote efficient zoning and land use standards

	Strategy	Action
4.1.1	Permit higher densities land use in housing to encourage in-town living	1. Examine the building and zoning codes to determine where appropriate changes can be recommended to permit higher densities

4.1.2	Permit more flexibility in creating more mixed use districts that encourage a wider diversity of land uses to accommodate in-town living lifestyles	1. Examine existing zoning and building codes to determine where changes can be made to encourage more flexibility and increased in-town development.
4.1.3	Incorporate into the Land Use and Guide Plan sustainable development practices	1. As the City Wide Land Use Plan is revised incorporate sustainable development practices.

Objective 2: Improved Parking and Development Standards

	Strategy	Action
4.2.1	Adopt parking standards in neighborhood business districts to seek more shared use of parking. In Downtown encourage better use of shared parking and outlying parking through use of loop transit systems.	1. Evaluate options of existing parking standards as they apply to existing business districts and downtown to determine where new parking solutions and alternatives could apply.
4.2.2	Review parking lot standards for hard surfacing to reduce amount of paving materials	1. Adopt codes that permit permeable pavers and alternative to hard surfacing
4.2.3	Review the building code to evaluate parking development standards	1. Evaluate existing code requirements by use category to determine if reductions by land use classification can be achieved

Goal 5: Urban Sprawl

Objective 1: Examine JEED policies

	Strategy	Action
5.1.1	Examine JEED policies to ensure growth only within approved districts and boundaries	1. Review all outstanding petitions and requests
5.1.2	Review with JEEDs opportunity for farmland preservation	1. Promote annual developments rights purchases of farmland
5.1.3	Enco	?

Objective 2: Transportation Policy

	Strategy	Action
5.2.1	Examine regional transpiration policy to discourage unnecessary urban sprawl	1. Review annually the AMATS TIP long range plan for projects encouraging sprawl

Smart Energy & Emissions

Local government operations directly consume large quantities of energy and resources with the myriad facilities, vehicle fleets, parks, street and traffic lights, sewage and water treatment plants, and other public works that they own and operate. Nevertheless, when you examine the ICLEI-Local Governments for Sustainability survey results, the City of Akron is only directly responsible for 3% of the city's greenhouse gases during the baseline year of 2005. Even so, the Mayor has pledged to lead by example by creating a Greenprint Plan to maximize energy efficiency and waste reduction in local government buildings, facilities and operations.

The last time a new city building was constructed was a fire station in 1998. With the prospect of economic stimulus funding becoming available it gives the city an opportunity to build a new fire station, a courthouse annex and possibly a new Transfer Station to handle the city's trash and recyclables according to LEED guidelines. Most of the city office buildings downtown were built in the late 1950's. So in Akron, the city government is not faced with building new green buildings (with the exception of new Community Learning Centers) as much as retrofitting existing buildings over time in a cost-effective manner. It is just as important to implement many small measures in existing buildings as it is to get all excited about building a relatively few new zero-carbon buildings. The economic stimulus funds could make it possible to convert the Municipal Building into a model for green building retrofits. The sooner you make energy improvements in existing buildings, the faster and greater will be the payoff in greenhouse gas reductions. It's like a miracle of compound interest: start now and the benefits keep compounding over the years.

To assess the government's energy bill, staff had to look at bills for 16 buildings downtown, 15 fire stations, 34 parks, 13 community centers, 2 golf courses, 2 stadiums and 7 parking decks! The list of city-owned facilities is long and diverse. The city, as well as all other residential and commercial buildings, needs to evaluate how efficiently they are using energy in the areas of: heating and cooling, lighting, heating water and operating appliances. One way of reducing energy bills will be putting three key city office buildings into EnergyStar's Portfolio Manager program so that the Building Maintenance Department can track the results of new green building initiatives and then compare their progress in reducing utility costs with all similar office buildings in the system nationwide. Summit County has already added 25 buildings to the Portfolio Manager data system.

Efforts to increase energy efficiency in residential and commercial buildings have great potential to generate new employment opportunities in the rapidly expanding green economy being fueled by the economic stimulus legislation. These structures account for a significant portion of total energy consumption in the United States, and dedicated initiatives to improve energy efficiency, such as the Department of Energy's Weatherization Assistance Program, could significantly impact the community's electricity consumption.

As of February 2009, the City of Akron's Building Services Department will be merged with Summit County's Building Department. All building permits will be issued through the county for residential, commercial and industrial. The same building inspectors will be handling both county and city construction projects. So it will be a combined Green Building Committee that will be setting goals for greener building incentives while following the Ohio Basic Building Code (OBBC). Building plan examiners need to be familiar with LEED (Leadership in Energy and Environmental Design) and other national codes for building greener buildings because it is the architects who oversees the grading sheets for these new environmental standards and submits them with his building plans for approval. In the City of Akron, we are on the cusp of two neighborhood conversions, as old rubber plants are being razed so that mixed use buildings, parking decks and national/world headquarters can be built and they are incorporating LEED principles. In these neighborhoods where the original rubber companies were originally located there will now be major infrastructure improvements and housing rehabilitation projects beginning and as a combined Building Services Department of Summit County must be prepared to encourage the principles of energy efficient construction.

Another aspect of setting emission goals is protecting the health and safety of the city's residents due to air quality standards not being met locally. Harmful motor vehicle emissions account for between 25 and 51% of the air pollutants found in urban neighborhoods. Akron had 14 high ozone days in 2007. Pollution-related health ailments bring with them both a human toll and a staggering cost: $3.2 billion is spent each year treating children under the age of 18 for asthma alone. In the United States, the Environmental Protection Agency (US EPA) sets standards for principal air pollutants found throughout the country at levels designed to protect public health. Akron is included in a three county air quality management area of Medina, Portage and Summit counties which currently meets these standards except for ozone and PM2.5, which is the fine particulate matter, frequently called smog. The major source of these pollutants is mobile sources, particularly diesel exhaust. Our three counties will not be designated in "attainment" until all the samplers in an eight-county area meet the EPA standards. These eight counties influence each other's air. That is why northeast Ohio still has mandated E-Check for our vehicles. Akron cannot change the facts that it is impacted by lake effect weather patterns and that it is located within a transportation corridor. The fact is we do have much cleaner air than when Akron was an industrial city but the standards have become more stringent over the years as better medical evidence of the effects of air pollution have been found. Less vehicle miles traveled (VMT), retrofitting diesel vehicles, using cleaner, low sulfur fuels and moving towards alternative fuels and hybrid vehicles would all help Summit County to meet these air standards. Tighter restrictions on coal-burning power plants and smokestacks industry could be triggered if federal levels for soot are not met by April 2010.

Action Area: Smart Energy and Emissions

Goal 1: Reduce the total amount of electricity and fuel used in city owned buildings and facilities, target greenhouse gas reductions from 2005 baseline year ICLEI survey

Objective 1: Reduce Energy in City Facilities

	Strategy	Action
1.1.1	Purchase only Energy Star Certified Equipment for City use	1. Departments need to establish specifications to give to purchasing. 2. Utilize Portfolio Manager/EnergyStar (after carbon footprint survey) to manage monthly energy costs by building
1.1.2	Anti-Idling	1. Review and/or establish policy to reduce and eliminate vehicle idling associated with city -operated vehicles. Systems for enforcement.
1.1.3	Quantify energy use and emissions for the City's Municipal operations and the community	1. Complete ICLEI Baseline Emissions Inventory
1.1.4	Improve efficiency of heating and cooling	1. Review current downtown district that has steam heat, decide what is best for the future
1.1.5	Achieve LEED Certification in City facilities through retro-fits and new construction	1. Possible city building retro-fits: Municipal Building, Morley Health Center 2. Possible new construction of city buildings: New waste/recycling transfer station, build a new Fire Station #2
1.1.6	Install Green roofs	1. Landmark Building 2. Cascade Plaza-use as a pilot project for a green roof
1.1.7	LED lighting replacements	1. Complete installation of LED traffic signals citywide 2. Complete installation of LED lighting for parking decks 3. Replace Cascade Parking Deck lights to LED 4. Replace 93 yard lights with LED, replace 25,000 street lights with LED and 400 city owned lights

Goal 2: Research and pilot alternative sources of energy for city services

Objective 1: Alternative sources of energy

	Strategy	Action
2.1.1	Fuel alternatives	1. Bio fuels for equipment
2.1.2	Electric power alternatives	1. Community Centers using solar panels
2.1.3	Convert truck fleet to hybrid vehicles where possible and practicable	1. Create specifications that require hybrid option when purchasing vehicles (4 trucks, 3 mowers) 2. Two (2) forestry hybrid trucks, 3 2-ton trucks, and 1 side-arm mowing tractor
2.1.4	Diesel Emission Reduction	1. Class 7 & 8 truck replacement: Replace 46 Class 7 & 8 diesel powered trucks that are over 10 years old 2. Retrofit Class 7 & 8 existing HD truck fleet, install particulate mufflers or other technology to improve tailpipe emissions
2.1.5	Replace city fleet with extended range electric, plug-in hybrid, battery electric B.E.V. hybrid vehicles	1. Chart the replacement priorities, timeline for replacements 2. Build the infrastructure for plug-in vehicles-electrical outlets
2.1.6	Increase use of CNG fuel for city vehicle	1. Build a CNG fueling station to also be utilized by METRO RTA as a backup station 2. Purchase replacement equipment for 3 to 1 ton chassis that are CNG capable: sweepers, bucket trucks, flat bed, dump trucks
2.1.7	Reduce the cost of resurfacing roadways and reduce greenhouse emissions and the use of fossil fuels with less trucking and fuel usage.	1. Utilize hot-in-place asphalt recycling
2.1.8	Purchase a waste oil burning furnace	1. Burn Motor Equipment departments used motor oil to heat buildings
2.1.9	Install solar panels at Triplett Municipal Center	1. Provide electricity for the building
2.1.10	Bio-solids to Energy Project	1. Expand the pilot at Akron Compost Facility with K.B. Kurtz Brothers, to generate more electricity for facility and grid
2.1.11	Pilot a wind turbine	1. Install at Muni Center on Triplett to save $288,000 annually on electrical costs at facility
2.1.12	Provide a one-stop trash/recycling service for medical exemption customers	1. Provide one CNG split body eco-friendly packer truck for 600 medical exemption special needs trash/ recycling customers

Goal 3: The City of Akron Service Department will coordinate with the combined Building Department of Summit County to promote green building practices within the county

Objective 1: Green Build

	Strategy	Action
3.1.1	Create awareness of LEED Certification and other green building principles within the community.	1. Establish incentive programs for green building projects completed and green processes developed in the public sector.
3.1.2	All new and rehab projects in the city to be LEEDS certified	1. Identify in the Capital Budget future projects that can meet this goal
3.1.3	Add Green Build into OBBC	1. Partner w/ Summit County to Lobby for new state OBBC

Goal 4: Strive to create a sustainable culture within the city that encourages employees to conserve resources and work more energy-efficient

Objective 1: Conservation

	Strategy	Action
4.1.1	Paperless office	1. Incentive programs for each department for creation and implementation of paperless ideas
4.1.2	Work schedules to conserve power and fuel	1. Investigate using 4-10 hour days for gasoline conservation, also investigate the work at home concept

Goal 5: Develop or support programs in the community that assist residents, businesses and industry to reduce their emissions and save money through energy efficiency. At the same time improve air quality by striving to meet mandated level of particulates.

Objective 1: Emission Reduction

	Strategy	Action
5.1.1	Alternative transportation	1. Utilizing different modes of more efficient transportation
5.1.2	Minimize particulate emissions from construction activities	1. Establish work practice policies and education/ enforcement protocol
5.1.3	Support carbon fiber bi-polar plate technology for development of fuel cells to be used in regular vehicles or commercial energy generation	1. Support the Ohio Fuel Cell Coalition of the University of Akron and the American Engineering Group
5.1.4	Send Home Energy Efficiency Kits home with each 6th grader in Akron (2,000)	1. Fund training for charter and private school sixth grade teachers and purchase home kits for all 6th grader families in Akron for spring 2010

Smart Green Jobs

The role of economic development in today's economy is becoming increasingly challenging as the capital and job markets contract. The goal for economic development professionals is to work toward creating quality job opportunities for the citizens of the community, to retain existing jobs, provide opportunity and assistance to support company expansion needs and to attract new jobs from outside the area

Throughout the country, cities, counties and states are competing with one another to attract companies and jobs to their communities. Further, competition is now global, making the challenges even greater. Jobs being exported off-shore to countries where wages are significantly lower.

To stand apart and compete effectively in the new global workplace, the City of Akron must offer incentives that are attractive, affect a company's bottom line and speak to the ever increasing requirement to provide community amenities that will support quality of life decisions for an increasingly mobile workforce.

Akron has a rich history of inventiveness, creativity, and adaptability. This community has not only survived the devastating loss of an industry that defined it, but has reshaped its economy by utilizing the vast knowledge base and cluster industries already located here including polymers, metalworking, biomedical, instruments and controls.

Within this framework, Smart Job creation is an essential component of the Greenprint for Akron to create opportunities for smart job creation in industries that further the mission to foster a sustainable eco-friendly community. The city is supporting this effort by focusing on four primary objective areas for green job creation: construction, alternative fuels, energy efficient product production, and recycling.

Akron has already had some notable successes by supporting green construction initiatives. Specifically, FirstEnergy completed construction of the city's first LEED certified office building in 2008. The 208,000 square foot incorporates design and technology aimed at conserving energy, promoting energy efficiency and creating a healthy workplace. Renewable and recycled materials were used in the construction and employees are being encouraged to adopt eco-friendly practices in the workplace and beyond.

METRO Regional Transit Authority has completed construction of the $18 million Intermodal Transit Center designed, constructed and operating to meet Gold LEED certification standards. The Transit Center is a photovoltaic solar-powered facility. The roof has the largest single array of solar panels in Ohio. Each of the 432 panels, generates 310 watts of electricity for a total of 133,920 watts, enough to power 130 homes and offset approximately 25% of the electricity used at the Transit Center. In addition, a well-field consisting of 45 300-foot wells will supply the geothermal heating and cooling system. Rainwater will be utilized for cleaning, waste removal and landscaping.

The Akron Global Business Accelerator is on the cutting edge of providing support services in its technology incubator for a cluster of early stage, advanced/renewable energy and cleantech companies. In cooperation with the City of Akron Office of Economic Development, the Accelerator is converting a former steel-treating facility into a multi-tenant pilot plant development center. This center will be used to demonstrate the commercial feasibility of these advanced technologies. This center will be unique in the state of Ohio.

Currently, five clean technology companies reside in the Accelerator, with three more in the vetting and due diligence process:

- ReXorce Thermionics has licenced a NASA technology to convert waste industrial heat into electricity, usable heat or cooling. Worldwide, enough industrial and commercial waste heat is generated that could produce 14 trillion watts of electricity annually. In real terms, that would be more than enough to heat the entire city of Akron for many years. The company will be prototyping this technology for 3 Ohio companies: a steel company, a brewery and an industrial brick company.

- PolyFlow has developed a proprietary process to efficiently convert polymer waste into chemical feedstock. It was voted the "Most Promising Technology Award for 2008" by the Clean Tech Forum in Washington, D.C.

- Vadose licensed a University of Wyoming technology that will convert polymer waste into synthetic crude oil. The company is in the process of setting up its modular pilot plant in the Accelerator's demonstration center.

- Princeton Environmental licensed a Japanese bio mass/solid waste gasification technology and recently relocated to Akron from New Jersey. Princeton will concentrate on the disposal of hazardous hospital waste in a benign and closed loop system for America's 11,000 hospitals.

- MAR Systems has developed a proprietary process to cost effectively remove toxic materials from air and water.

- Akron will continue to support industries and technologies that advance the vision of The Greenprint for Akron by creating jobs and opportunities that use cleantech processes, manufacture eco friendly materials and products, construct LEED standard buildings, promote recycling and energy efficiency to move the community toward ecological sustainability.

Action Area: Smart Green Jobs

Goal 1: Increase number of green jobs in Akron

Objective 1: Increase jobs in green construction

	Strategy	Action
1.1.1	Increase green construction	
1.1.2	Training credit or grant to assist businesses in training their employees to use green technology, such as in green roofing and green certified programs	1. Research similar training grants in other communities
1.1.3	Advertise incentive when marketing Akron	1. Promotional materials needed, as well as press conferences, modify websites to carry message about green technology
1.1.4	Make green construction a preference of builders in Akron	1. Promote benefits of green building, including the to-be-created grants and incentives
1.1.5	Encourage new building in the City to be green certified	1. Building code phased in for green certification
1.1.6	Promote incentives & current green businesses here in Akron	1. Promotional materials needed, as well as press conferences
1.1.7	Encourage businesses looking to relocate to move to newer green certified buildings	1. Compile list of green certified buildings in the City, as well as any that have adopted green technologies
1.1.8	Encourage older buildings to become more green	1. Educate community on possibilities for green additions and the benefits of them
1.1.9	Encourage Deconstruction business to move into Akron, or start up a Deconstruction business in Akron	1. Find a work force like YouthBuild or Salvation Army to reduce costs
1.1.10	Encourage green remodeling of houses	1. Work with state to create grants or tax credits, find training dollars from Department of Labor /Jobs and Family Services, work with GBI to determine how to proceed
1.1.11	Promote jobs on OhioMeansJobs.com	

Objective 2: Increase jobs in alternative fuels

	Strategy	Action
1.2.1	Seek out alternative fuels businesses to encourage a move to Akron	1. Attend conference on alternative fuels
1.2.2	Promote incentives & current green businesses here in Akron	1. Promotional materials needed, as well as press conferences, modify websites to carry message about green technology
1.2.3	Create Incubator to attract alternative fuel businesses to Akron	1. Determine if state or federal grant dollars are available to assist

1.2.4	Work with universities and trade schools to ensure programs are in place to train workforce	
1.2.5	Ensure zoning and regulations are inviting to these types of companies	
1.2.6	Bring wind energy business into Akron	1. Connect with the Great Lakes Wind Network
1.2.7	Promote jobs on OhioMeansJobs.com	

Objective 3: Increase jobs in energy efficient products

	Strategy	Action
1.3.1	Seek out industries related to energy efficient products	1. Attend conference on energy efficient products
1.3.2	Promote incentives & current green businesses here in Akron	1. Promotional materials needed, as well as press conferences, modify websites to carry message about green technology
1.3.3	Create Incubator to attract energy efficient product businesses to Akron	
1.3.4	Work with universities and trade schools to ensure programs are in place to train workforce	
1.3.5	Ensure zoning and regulations are inviting to these types of companies	
1.3.6	Promote jobs on OhioMeansJobs.com	

Objective 4: Increase jobs in recycling areas

	Strategy	Action
1.4.1	Seek out industries related to recycling	1. Attend conference on recycling businesses
1.4.2	Promote incentives & current green businesses here in Akron	1. Promotional materials needed, as well as press conferences, modify websites to carry message about green technology
1.4.3	Create Incubator to attract recycling businesses to Akron	
1.4.4	Work with universities and trade schools to ensure programs are in place to train workforce	
1.4.5	Ensure zoning and regulations are inviting to these types of companies	
1.4.6	Reduce construction waste within the City	1. Encourage Deconstruction business to move into Akron, need warehouse space such as Habitat ReStore
1.4.7	Promote jobs on OhioMeansJobs.com	

Objective 2: Support distribution of necessary goods and services within reasonable access by residents

	Strategy	Action
3.2.1	Determine a necessary set of uses and services within a neighborhood market area	1. Evaluate current distribution of goods and services 2. Identify location gaps in goods and services 3. Engage property owners in neighborhoods and solicit businesses to fill gaps

Objective 3: Emphasize road maintenance over road extension

	Strategy	Action
3.3.1	Support county, regional and state initiatives that promote maintenance of existing streets, highways and interchanges	1. Support increases in State Issue 2 funding 2. Encourage a substantial majority of AMATS - regulated funding is directed towards existing street systems

Objective 4: Adjust off-street parking development standards

	Strategy	Action
3.4.1	By reducing development costs related to parking, higher levels of revenue-producing development can occur.	1. Establish maximum parking requirements that limit the amount of land needed for off-street parking 2. Develop more public and shared parking opportunities 3. Expand CBD area with no parking requirement.

Objective 5: Adjust on-street and off-street public parking fees to reflect market conditions

	Strategy	Action
3.5.1	Land for parking is valuable and should be priced to reflect that value and increase turnover of use. Inexpensive cost for parking encourages use of automobiles	1. Increase meter fees in high use areas. 2. Increase meter enforcement activity. 3. Offer reduced-cost deck fees after 6 pm but eliminate free parking.

Objective 6: Support access to buildings for all users regardless of physical abilities

	Strategy	Action
3.6.1	Simple entry and internal design standards can allow all users to comfortably access buildings	1. Establish “Visitability” as a requirement for all new residential and commercial buildings

Smart Materials & Solid Waste Management

Akron has made great strides in handling their solid waste in an eco-responsible manner. The City of Akron is still handling their own wastes, which controls costs for their citizens, retains better control and monitoring of the waste handling process. So there is less neighborhood traffic on the streets form multiple waste haulers, and less litter due to Smart Carts with lids, which are more aesthetically pleasing. They have shown commitment with the purchase of automated trash and recycling trucks and the distribution of more than 73,000 green Smart Trash carts and 34,000 blue 64-gallon Smart Recycling Carts. Akronites can keep hazardous items out of the municipal waste stream by voluntarily taking their household chemicals and wastes to the Summit County Household Hazardous Waste Recycling Center, run by the Summit/Akron Solid Waste Management Authority.

Homeowners in Akron can recycle weekly on the same day as their curbside trash collection day. They can put their recyclables into blue or clear plastic bags: all metal food and beverage cans, glass bottles and jars, empty aerosol cans, aluminum trays and foil and all rigid plastics (marked #1 - #7 on the bottom). All containers should be rinsed and all lids removed and discarded. Newspapers, magazines and corrugated cardboard are placed in brown grocery bags or tied in bundles. The full plastic and full grocery bags go into the Smart Cart at the curb. The city also recycles automobile tires, refrigerators, washers, dryers, and air conditioners through local salvage companies, picking them up weekly with the household trash. Weekly large curbside pick-ups can take mattresses, couches and bundled yard-brush. In the month of May, the city's Sanitation Division will also pickup additional bulky items or items that are packed in bags and boxes. Just an extra way to clean up Akron!

The Summit Akron Solid Waste Management Authority (SASWMA) develops long-term solutions for the management of solid waste (trash or garbage) in Summit County, Ohio, while simultaneously protecting the Earth. The Authority is one of 52 Ohio solid waste districts required by the State of Ohio to develop long-term goals to increase recycling and reduce reliance on landfills. The Ohio EPA approved their current Solid Waste Management Plan Update on November 25, 2003. The Plan Update is prepared every three years and is designed to manage waste for a ten-year period. There is no landfill located in Summit County. The City-owned Hardy Road Landfill was closed in 2003. The City of Akron is the largest municipality in the county and they run their own residential trash and recycling collection curbside programs. The SASWMA 2006 Annual District Report reported 124,795.03 tons of residential and commercial waste recycled. The same report cited 207,709 tons of industrial waste recycled for a total Summit County figure of 332,504.03 tons of recyclables not added to the municipal solid waste stream.

The SASWMA acts as a clearing house as well as an educational/ training resource for schools and businesses that want to do waste audits and implement in-house recycling programs to help reduce the municipal solid waste stream. In many townships and smaller municipalities they provide recycling drop-off areas for citizens and small businesses, but there are none located in Akron. They do run mixed paper shredding promotions, rotating the locations throughout the county. Abitibi Paper Retrievers â Recycling Program and the River Valley Paper Company have placed bright yellow and green recycling bins in parks, at schools and at nonprofit agencies to collect mixed paper from Summit County residents and businesses. In 2006, Abitibi recycled 4,524 tons for use in producing recycled newsprint grade paper.

During the month of April SASWMA promotes an appliance recycling drive, partnering with area scrap dealers, to reach communities that do not offer curbside appliance pick-up like the City of Akron's Sanitation Department does. Opened in 1996, SASWMA opened the first permanent Ohio Household Hazardous Waste Recycling Center where Summit County residents could safely dispose of environmentally hazardous wastes such as: paints, motor oil, aerosol cans, household chemicals, and more recently computers and their components. They also offer county residents another option for recycling passenger tires and televisions for a nominal fee. They pride themselves on recycling 90% of the waste they collect. The facility is open annually April through the end of September on Tuesday afternoons and Wednesday evenings.

The county's Solid Waste Management Plan depends on the transporting of the County's waste, including City of Akron wastes, out of the county, most often to Countywide and American Landfills, in Stark, Wayne and Tuscarawas Counties.

The City of Akron currently has a contract with Waste Management of Ohio to handle the disposal of all the residential trash the city collects which is routed through their Fountain Street Transfer Station. All recyclables collected by the City's automated curbside recycling program are also staged at the Transfer Station before being taken north through a Waste Management contract to their Oakwood, Ohio facility where recyclables are sorted, packaged and prepared for markets.

Yolanda Walker, Executive Director of the SASWMA, will be leading the writing of the new Solid Waste Plan for Summit County over the next 5 years. Her goal is to diversify the county's disposal options beyond land filling our waste. She would like the county to re-visit waste-to-energy options, similar to the improved combustion technology used in plants all over Europe. She would also like to see collection system for food waste be developed from food processors, groceries, institutions and food banks. Challenges till exist with handling our solid waste in Summit County, such as collecting and recycling plastics. Educating the pubic about how to recycle without contamination to get a good marketable product continues to challenge everyone involved with curbside and drop-off programs. How can solid waste districts and municipalities reach multi-dwelling units with recycling programs? Do we have a big enough infrastructure in place for small businesses to handle the mountain of e-waste sitting in homes and companies in need of recycling? To solve these big material handling issues Yolanda feels we need three things: infrastructure, the will to do it and legislation. Americans still value convenience over recycling and recycling needs to be more profitable through legislation. Manufacturers need to take life-cycle responsibility for their products through disposal and re-use.

The Public Works Bureau has responsibilities beyond the Sanitation Division's collection of waste and recyclables. The Highway Maintenance Division is responsible for over 900 miles

of street and expressway maintenance, which involves many operations where materials can be recycled responsibly as you can see in the plan's goals. The Street Cleaning Division conducts the City's Leaf Removal Program, collecting and then composting 30,000 tons of leaves annually. During the winter this is the Division that plays a vital role in keeping Akron's streets clear of snow and ice. They also work closely with Keep Akron Beautiful to dispose of the litter collected daily by litter collection crews, in addition to keeping the downtown district looking its best with the Downtown Akron Partnership's (DAP) Clean & Safe Operation.

In the City of Akron, Department Managers are responsible for their own budgets and consequently their supply requisitions through the Procurement Office. It is the job of the Procurement Office to send out the bids and work to get the best (and greenest) products to get the job done satisfactorily. Pat Ashbrook is the woman who runs the department that strives to sample new environmentally–friendly products by having them field-tested by the various departments. Her goal is reduce the amount of hazardous content while still accomplishing the stated objective. Paul Barnett, P. E. of Public Works is currently serving as the President of the Community University Education (CUE) buying co-op, which also might be able to have an impact on future green buying decisions in many Akron institutions.

Procurement Departments have seen a change in the universal awareness of using less hazardous and more sustainable products due to the media. More suppliers are offering an expanded line of greener products to test and choose from, so it becomes a decision of what is the best product, for the best price, that is still effective and kind to the environment. The biggest challenge for the Procurement Department in the future will be changing city specifications and /or adding to them to get safer, more recyclable products in the pipeline. The other aspect of green procurement will be educating the Department Managers about their new, greener options and winning their approval. In 2008 the Procurement department is concentrating on Motor Equipment products such as de-greasers and solvents. Secondly, Building Maintenance Department cleaning products, for them and their contracted cleaning companies. So far the switch to recycled content paper citywide has been most successful beginning with toilet paper.

Action Area: Smart Materials & Solid Waste Management

Goal 1: Strive to recycle more of Akron's municipal solid waste stream.

Objective 1: Expand the city's residential curbside recycling program by increasing weekly participation and the volume of recyclables collected.

	Strategy	Action
1.1.1	Continue the city's commitment to recycling education and promotion of program.	1. Assign a Recycling Coordinator in Public Works to make public appearances, track success 2. Conduct a recycling education campaign using Sanitation trucks and printed media
1.1.2	Increase the household participation rate to 75%	1. Provide incentives for Akron residents to recycling above and beyond cost savings
1.1.3	Increase the volume of recyclables collected curbside by 50 %	1. Collect all recyclables curbside, polymer numbers 1 through 7, to make it easier for the consumer 2. Study the implementation of collecting all organic waste curbside.

Objective 2: Manage and measure a workplace recycling program in city of Akron office buildings.

	Strategy	Action
1.2.1	Conduct a waste audit of city office buildings.	1. Choose representative city facilities
1.2.2	Determine type and quantity of collection receptacles	1. Research funding sources
1.2.3	Assign responsibility for collection and measurement of selected commodities to be recycled internally	1. Design a tracking system of measurement by building and collection logistics

Objective 3: Work towards a zero landfill policy of waste generated through the Public Works Department

	Strategy	Action
1.3.1	Heat the Fleet Maintenance Garage by burning used oil derived from the servicing of city equipment	1. Maintain oil burners that operate used oils.
1.3.2	Remove bulk leaves throughout the City; and utilize in the production of mulch and topsoil	1. Push up, sweep and pickup leaves, sell leaves to contractor and use in mixing with wood waste for producing our own mulch.
1.3.3	Grind wood waste and pallets to produce mulch for use throughout Public Works operations	1. Hire contractor to grind wood waste and produce mulch.
1.3.4	Recap truck tires	1. Hire contractor to recap truck tires whenever possible
1.3.5	Recycle hydraulic oils by filtering and reusing	1. Purchase the equipment
1.3.6	Crush all oil filters and collect 95% residual oil for recycling	1. Purchase oil crushes at each location
1.3.7	Recycle scrap metal and tires	1. Install recycle storage bins to contain materials

1.3.8	Perform the recycling of asphalt roadways	1. Purchase recycling equipment, and hire personnel to operate.
1.3.9	Experiment and test the use of increased RAP (Reclaimed Asphalt Product) in our resurfacing program.	1. Write resurfacing specifications to require higher RAP percentages

Objective 4: Provide expanded opportunities for the citizens of Akron to recycle.

	Strategy	Action
1.4.1	Investigate offering a recycling drop-off facility in the City of Akron for residents of multi-family housing units and small businesses	1. Meet with SASWMA to determine need, logistics and funding
1.4.2	Provide multiple commodity recycling collection and disposal at all city events.	1. Seasonal collection receptacles for multiple commodities placed at Lock 3 and Lock 3 and Lock 4 parks 2. Study the placement of recycling receptacles at the BMX/Skateboard Park 3. Study the use of temporary, re-useable recycling collection receptacles for use at Recreation Department events (Arts Expo, Ballets, concerts). 4. Work with Soapbox Derby Administration to provide a system of recycling at this annual national event

Objective 5: Work with large institutions in the community to increase or improve system-wide recycling programs.

	Strategy	Action
1.5.1	Work with the Akron Public Schools (APS) to implement a system-wide recycling program for the classrooms and offices.	1. Begin meeting collaboratively to come up with a cost avoidance plan
1.5.2	Continue partnering with Downtown Akron Partnership (DAP) to offer recycling programs for members of the Special Improvement District.	1. Finish the pilot project Phase 1 with restaurant cardboard recycling, move into Phase 2 with SID office buildings
1.5.3	Monitor the success of the recycling program at Canal Park Stadium for possible expansion.	1. Examine statistics from 2008 season, make adjustments

Goal 2: Develop sustainable procurement practices, policies and procedures

Objective 1: Continue to identify green, biodegradable cleaning and custodial products for use by Building Maintenance Department (BMD) that effectively handle cleaning needs

Objective 2: Continue to identify the least hazardous products for use by the Motor Equipment Division

Objective 3: Concentrate on educating the city department heads about green alternatives when requesting purchases

	Strategy	Action
2..3.1	Sponsor a City of Akron Earth Day Procurement Fair of possible new products for Department Heads	

Objective 4: Examine Purchasing Department specifications to include earth-friendly options in the bid process.

GOAL 3: Limit non-point source pollution from Akron's roads and highways.

Objective 1: Reduce harmful applications of road salt

	Strategy	Action
3.1.1	Develop and construct a brine making station that will produce various concoctions of salt brine, geo melt, and calcium chloride	1. Write specification for equipment and installation of systems
3.1.2	Reduce the use of road salt to de-ice roadways by 30%	1. Install wetting systems in all snow & ice fighting vehicles
3.1.3	Utilize alternate products that are more eco-friendly to treat roadways during icing events.	1. Purchase products such as geo-melt, calcium chloride and clear lane

Smart Transit

The center of the city is criss-crossed by two inter-state highways: Route 8 going north to Hudson, which becomes Interstate 77 going south to Canton, intersected at the downtown interchange by Interstate 76 going east to Youngstown and west then north to Cleveland as I-77. There is also Route 59, which takes passengers from I-77 traveling east to the downtown exits. These state roadways are maintained by the City of Akron's Public Works Department, under a contract with the Ohio Department of Transportation (ODOT). The City of Akron's Highway Maintenance Division is responsible for maintaining over 900 miles of streets and expressways. There is good connectivity of the overall transportation system and development patterns. There is a good balance of transportation facilities so residents do not have to spend a lot of time in their cars, stuck in traffic. This is partly a function of the size of our city, 62 square miles. Instead of discouraging autos we should be concentrating on creating incentives for alternative vehicles and fuels. Perhaps we should let the market forces dictate the increased mile-per-gallon ratings and size of the gas-guzzling cars on the road.

Once in Downtown Akron, there are more than 20 parking decks and garages with spaces for more than 10,000 vehicles. Not to mention there are more than 1,100 metered parking spaces and many surface lots for workers and after-business hour's visitors. Currently all parking in city-owned decks, lots, and at downtown meters is FREE after 6 p.m. and all day on the weekends to accommodate recreational visitors to the urban district for baseball, dining, art museums and theater. Parking may become a topic for community discussion since the Greenprint Plan wants to encourage walkability and alternative means of transportation, it may mean re-thinking what the city requires for parking standards.

Transit decisions and increasing mixed-use economic development go hand in hand. The City of Akron is promoting mixed use and working hard to accommodate it. One new example of a private developer's effort would be the new mixed-use block at the corner of South Main Street and Exchange Street designed with University of Akron students in mind. There will be housing designed with university students in mind built over restaurants and light retail. The private sector is out front with this development movement for mixed-use and cities like Akron are adapting zoning regulations to accommodate these projects to make the community more vibrant.

Historically, parking has been a problem with the growing population of University of Akron students on the campus during weekdays. This problem has been addressed as part of the University's ambitious Landscape for Learning expansion of housing and parking, during 2000-2004, as the school evolved from a commuter campus to a safer, more residential environment. For the fall 2008 semester the school began using 12 campus shuttle buses to promote remote parking for commuters and those living off campus.

Public transportation is provided by Akron METRO Regional Transportation Agency (RTA). A sales tax levy was passed in March 2008 for a one-quarter of a percent, which is estimated, to bring in approximately $15-18 million additional revenue annually. Metro receives one-half percent sales tax revenue from Summit County.

METRO operates a total of 36 routes including 22 fixed routes, 2 neighborhood circulator routes, 4 Town Center routes, 2 expressway routes to downtown Cleveland and 1 route to the Akron/Canton Regional Airport. METRO operates 6 zone buses with special late-night service on seven of its routes for second and third shift workers. In addition, there is a contracted service with the local board of education serving approximately 1,210 students. Their fleet is made up of 187 buses. Over 66 percent of all Summit County households are within one-quarter of a mile of a bus route. In addition to extensive downtown Akron coverage, METRO serves most major shopping malls and centers. METRO SCAT service consists of 82 Para-transit buses for transporting older adults and persons with disabilities, mostly to doctor appointments and grocery shopping.

The new green Intermodal Transit Center, which opened in January 2009, shows a commitment to public transportation services in an attractive, new environment for the pubic with all the amenities. Greyhound has signed on to also utilize the new facility, located off of Broadway, a main arterial leading into downtown Akron.

The City of Akron cannot rely on METRO RTA alone to meet its greenhouse gas reduction goals. The public needs to be made aware of carpooling programs such as Ohio RideShare, developed by the AMATS partners. Akron has met with entrepreneurs offering shared use of curbside vehicles, like City Wheels. This model in the future could help reduce government fleet costs and departmental operating costs if implemented in an area of high employee density, like downtown Akron. There are certainly positive aspects of providing this shared vehicle concept in university settings and in the development of walkable neighborhood communities.

The City of Akron runs a Motor Equipment fleet of 1,739 vehicles. The Akron Police Department has 320 vehicles that range from sedans to paddy wagons. The Akron Fire department also has a wide range of 113 vehicles, which include ambulances, pumper trucks and SUVs. The balance of city fleet is made up of all types of trucks, backhoes, street sweepers and of course passenger vans and cruisers. Alternative fuel vehicles may be piloted for various city functions in different departments until Motor Equipment determines where they are best suited to meet the city's needs.

The City of Akron is working with Summit County's internal Green Team to create shared goals to reduce governmental greenhouse gas emissions in the region. The City of Akron's Smart Transit committee has formally combined with the County's Green Team, Green Fleet Committee to closely examine the fleet ramifications of alternative fuels, hybrid vehicle purchases and more specifically, to determine what functions within their fleets would be best suited for using vehicles featuring these new technologies. It is a huge decision for the city and the county to decide where to spend capital funds to realize the operating benefits of reducing greenhouse gases when much of the transportation technology is still uncertain and in its infancy when offered through domestic manufacturers.

The City of Akron is committed to the continued construction of the Ohio-Erie National Heritage Canal Corridor, a multi-use trail that extends the entire north-south length of Akron, approximately 18 miles, along the Canal Corridor. This well-used trail is the product of a partnership with the National Park Service, Metro Parks Serving Summit County and the nonprofit Ohio and Erie Canalway Coalition, and represents a recreational amenity, as well as an economic stimulus for the city. The City of Akron is now evaluating all road projects keeping the needs of all travelers in mind, remembering that a complete streets perspective respects pedestrians, bikers, disabled, and commuters alike. The city's Towpath Bridge opened for use on August 22, 2008, also the kickoff of Akron's first Bike Week.

Action Area: Smart Transit

Goal 1: Manage the city transportation fleet in a manner that limits energy usage

Objective 1: Improve fuel efficiency among vehicle types

	Strategy	Action
1. 1.1	Establish target mileage goals for future purchases of all varieties of City vehicles	1. Replace aging and inefficient vehicles on a regular basis with vehicles meeting mpg standards 2. Educate Departments on vehicle and mpg ratings for fleet purchases 3. Consider alternative vehicle types for various work functions 4. Evaluate hybrid technology for certain work applications 5. Utilize hybrid/hydrogen fuel vehicles when products more successfully developed

Objective 2: Expand use of alternative fuels as appropriate

	Strategy	Action
1.2.1	Evaluate alternative fuel technologies for cost, service, availability and durability	1. Improve understanding of alternative fuel choices for service, availability and performance 2. Test alternative fuel or additives on pilot trial basis 3. Communicate with public/private sector on experience with alternative fuels

Objective 3: Establish fleet operating procedures that reduce energy consumption

	Strategy	Action
1.3.1	Evaluate distribution, assignment and operation of vehicles	1. Establish and enforce idling policies and practices that limit fuel usage. Provide education on merits. 2. Encourage ride-sharing to work in City vehicles 3. Evaluate practices relative to “in field” visits with City fleet. 4. Establish operational energy cost limits for departmental fleet usage. 5. Set fleet reduction goals that include use of lease vehicles and equipment sharing 6. Educate and encourage tire pressure maintenance. 7. Utilize green cleaning products and solvents

Objective 4: Reduce employee vehicle energy use

	Strategy	Action
1.4.1	Expand telecommuting and use of non-auto trips to work	1. Permit periodic work-at-home options. 2. Utilize web-based conferencing and training options to limit travel 3. Develop incentives for use of public transit. 4. Encourage bicycle commutes to work.

Goal 2: Maintain an efficient transportation network

Objective 1: Assure that City right-of-way is in good condition

	Strategy	Action
2.1.1	Allocate sufficient resources for bridge, street and sidewalk repair	1. Establish annual minimum capital budget allocation. 2. Utilize 311 data to identify trouble spots 3. Evaluate work procedures to improve efficiency and minimize energy use. 4. Evaluate materials and processes used to extend useful life of transportation infrastructure.

Objective 2: Support multi-modal transportation options throughout the City

	Strategy	Action
2.2.1	Establish a complete streets policy in the evaluation of future ROW projects	1. Complete the Ohio & Erie Canal Towpath through the City 2. Complete METRO transfer station on Broadway 3. Include Pedestrian/Bicycle/Disabled needs review in all roadway projects Scope of Service 4. Meet regularly with METRO on routing and passenger use issues

Objective 3: Develop a Community Bicycle Plan

	Strategy	Action
2.3.1	Engage a broad section of the community in the development of a comprehensive program for biking in the community	1. Create inter-departmental group to develop plan 2. Establish Community Advisory Group 3. Allocate resources to implement plan elements 4. Work with the University of Akron/UPA on their Bicycle Program

Objective 4: Expand access to transport vehicles

	Strategy	Action
2.4.1	Pursue development or expansion of transport vehicles	1. Increase participation in AMATS Rideshare program by City employees 2. Evaluate establishment of a Car Share program in the City 3. Evaluate establishment of a Bike Share program in the City

Objective 5: Use energy efficient traffic control devices

	Strategy	Action
2.5.1	Replace aging traffic control mechanisms with energy efficient components	1. Use LED devices in new traffic signals; retro-fit existing signals with LED lenses 2. Utilize roundabouts in place of signals where appropriate. 3. Evaluate new street light equipment for performance and efficiency.

Objective 6: Encourage street connectivity

	Strategy	Action
2.6.1	Recognize the value of multiple access routes to residential and commercial areas	1. Limit creation of new cul de sacs 2. Restrict vacation of existing streets

Goal 3: Align transportation plans and land use decisions to limit travel miles

Objective 1: Encourage compact, mixed use development along arterial streets

	Strategy	Action
3.1.1	Create mixed use, higher density development in areas that are walkable and have good multi-modal transportation access.	1. Provide Zoning regulations that permit mixed-use development to occur. 2. Designate areas of the City most appropriate for this style of development 3. Follow Context Sensitive Solutions when improving major streets with mixed-use development.

Smart Water and Wastewater Management

Akron's water and wastewater utilities are leaders in implementing smart use of energy and natural resources. From using landfill gas to implementing alternative and beneficial uses for water and wastewater treatment residuals, the City of Akron has a long tradition of "green" operations and capital investments.

Water System

On April 1, 1912, the City of Akron acquired the privately owned Akron Water Company's plant near Summit Lake and has since operated the system as a municipally owned public utility. About August 1915, the Lake Rockwell supply started to be utilized for the City of Akron and its customers which are in both the Lake Erie and Ohio River watersheds. Akron is uniquely positioned on the Continental Divide which separates the Great Lakes and Gulf of Mexico watersheds. The average day's demand from the water system is presently about 40 million gallons for approximately 85,000 retail, and two master meters, customers, although during the summer it can exceed 55 million gallons a day.

The water system is an efficient, self-supporting utility, sustained wholly by water users and not by taxes. An Automated Meter Reading (AMR) system was implemented in 2005, drastically reducing the fleet needed to read residential account meters. Akron's existing water system has a present replacement value of over four billion dollars.

A financial challenge facing the City of Akron is the upward pressure on rates to fund renewing and replacing aging water system infrastructure and meeting ever stricter USEPA water treatment and distribution system regulations at a time when the overall trend for water consumption is decreasing.

Source and Reservoirs

The source of Akron's drinking water is the Upper Cuyahoga River, which begins its headwaters fifteen miles from Lake Erie in Geauga County. The Upper Cuyahoga River lies in a watershed of about 207 square miles of sparsely populated country in Portage and Geauga counties. The river flows through Lake Rockwell in Portage County and then towards Summit County, changes its flow direction in Akron from southerly to northerly, and finally empties into Lake Erie at Cleveland. There are three impounding reservoirs in the watershed. East Branch Reservoir, located northeast of Burton, Ohio, was completed in 1939 and forms a reservoir of 420 acres with available storage capacity of 1.5 billion gallons of water. Wendell R. LaDue Reservoir, located just east of Auburn Corners in Geauga County, was completed in 1962 and forms a reservoir of 1,500 acres and stores 5.9 billion gallons, 6.9 billion gallons with flashboards installed. Lake Rockwell, located two and one-half miles northeast of Kent in Portage County, provides water directly to the treatment plant. The dam that impounds the Lake Rockwell reservoir was completed in 1914, forms a reservoir of 770 acres and stores over two billion gallons of water with an additional 300 million gallons of storage with flashboards installed.

Akron owns about 15,900 acres (12%) of the Upper Cuyahoga River watershed upstream of the Lake Rockwell Dam. Akron manages its watershed property to promote a mature forest canopy to provide natural filtration and moderate runoff. The Akron Water Supply staff monitors the Upper Cuyahoga River watershed for sources of pollution to be eliminated and routinely checks water quality in the river and the three reservoirs.

Treatment Plant and Pumping Station

Three raw water intakes allow water to flow by gravity through three separate, parallel raw water conduits from the Lake Rockwell spillway area to the treatment plant about one-half mile away.

The treatment plant and pumping station is located at the southern end of Lake Rockwell. Originally built in 1912, this plant has been enlarged, remodeled, and modernized with proven water treatment processes over the years to meet increasing customer demand and to ensure compliance with federal and state drinking water regulations. The residuals from the treatment process (alum sludge) are beneficially reused as a soil amendment. After the final chemical treatment process, large pumps in the high lift pumping station push the water to Akron water customers. Two diesel generators provide emergency electrical power if needed for operating the entire water treatment plant.

Water Distribution

The finished water from the treatment plant is pumped about eleven miles through three water transmission mains to large equalizing reservoirs in Akron on Tallmadge Avenue and Brittain Road. Along their routes, these mains also serve the cities of Stow and Tallmadge through their pumping facilities. Fifteen miles of transmission main also deliver water to customers in Hudson and Twinsburg.

About 24 miles of feeder mains distribute the water from the transmission mains and in-city reservoirs to a network of over 912 miles of distribution mains in Akron, and over 85 miles of distribution mains outside of Akron. These mains carry the water to about 92,200 consumer connections and to the important 9,000 fire hydrants.

Sewer System

The sewer system was created in 1916 with a system of combined sewers and a wastewater treatment facility on Cuyahoga Street. The sewer system is a self-supporting utility, sustained wholly by sewer users and not by taxes. Akron's existing sewer system has a present replacement value in the billions of dollars.

A financial challenge facing the City of Akron is the USEPA mandate to abate combined sewer overflows (CSO) in accordance with the Clean Water Act. The Akron CSO Long Term Control Plan (LTCP) is currently estimated at $475+ million (2008 dollars) over a 19 - 30 year timeframe, and has the potential to cause sewer rates to increase 3 times (or higher) from current levels. Negotiations on the final scope and timeframe have been ongoing with USEPA, DOJ, Ohio EPA and the Ohio Attorney General. USEPA desires a much shorter timeframe, which would cause sewer rates to increase at a faster rate. Akron completed construction of a 10 million storage basin in 2006 at a cost of $20 million. A 6% rate surcharge was enacted in 2003 for Akron customers to pay for the project – suburban customers pay on a reimbursement basis based on previous year's costs. Another financial challenge is that the capital needs for the existing collection and treatment system are expected to be the same or more than the CSO LTCP costs over the next 30 years.

Joint Economic Development Districts (JEDDS) were created in 1994 to promote economic development in township areas. The City of Akron reinvests a portion of funds from the JEDD initiatives into water and sanitary sewer projects extending these services into township service areas, creating opportunities to eliminate aging underground septic systems that often leak and pollute the surrounding environment as well as the underground water table. Over 4,000 water and/or sewer tap-ins are completed and associated septic systems abandoned. The wastewater flows to a modern wastewater treatment plant avoiding the need to create an additional treatment facility in the township.

Treatment Plant

Originally put into operation on December 12, 1928, the Akron Water Pollution Control Station (WPCS) processes an average of 78 million gallons of wastewater every day (MGD) in accordance with its NPDES Permit with a staff of 60 employees. The peak capacity is 280 MGD. The Akron WPCS discharges to the Cuyahoga River just upstream of the Cuyahoga Valley National Park. The facility serves approximately 330,000 people residing in the Cities of Akron, Cuyahoga Falls, Fairlawn, Stow and Tallmadge; the Villages of Lakemore, Mogadore, Munroe Falls and Silver Lake; and the Summit County Townships of Bath, Copley, Coventry and Springfield.

Approximately 15,000 dry tons of biosolids from the wastewater treatment process are processed annually at the Akron Composting Facility. The resulting compost product is sold in bags or in bulk under the brand name Earth Pro™. A new anaerobic digestion system is being installed at a cost of $7.5 million to pilot its application with municipal sludge. The system is unique in the industry because the feed sludge is at 15 – 18% solids. The new system is designed to process about one-third of the wastewater treatment plant's annual sludge production. The package includes a methane gas utilization system that generates 335 kW of electricity to offset onsite power usage. It is projected that the anaerobic digestion system will eventually be expanded to process all of the biosolids and phase out the composting process, resulting in a greatly reduced footprint and related energy costs.

The City of Akron is using landfill gas from the closed Hardy Road Landfill (2002) to supply 25% of the Water Pollution Control Station's building heating needs by partially firing up to 9 boilers on landfill gas. Annual energy savings for the Akron Water Pollution Control Division are approaching $100,000 per year as natural gas costs continue to increase.

Collection System

The sewer maintenance (sewage collection) responsibilities include the daily operation of the sanitary, storm and combined sewers. The sanitary, combined and storm sewer systems are spread across 94 square miles and include 1,400 miles of sewer lines, 28,500 manholes, 22,500 inlets, 38 pump stations, 2 CSO detention facilities and 34 CSO rack structures with a staff of 65 employees. The collection system serves the entire Akron community along with portions of Bath, Copley, Coventry and Springfield Townships. The collection system also transports sewage from Cuyahoga Falls, Fairlawn, Stow (portion) and Tallmadge; the Villages of Lakemore, Mogadore, Munroe Falls and Silver Lake; and portions of Bath, Copley, Coventry and Springfield Township.

Action Area: Smart Water and Wastewater Management

Goal 1: Water Conservation

Objective 1: Public Information

	Strategy	Action
1.1.1	Send information to Public	1. Water bill insert to check plumbing fixtures 2. "Avoid water waste" tips in City calendar
1.1.2	Information Displays	1. Traveling display for public meetings 2. Proactive Drinking Water Week display in APUB Business Office Lobby
1.1.3	E-information	1. Update APUB website with Smart Water Use information
1.1.4	School presentations	1. City employees make school presentations on Smart Water Use w/handouts
1.1.5	Public meetings	1. City employees make presentations at ward meetings and to community groups on Smart Water Use w/handouts

Objective 2: Public Participation

	Strategy	Action
1.2.1	Rain Barrel Clinic	1. Provide instructional clinics for constructing rain barrels
1.2.2	Home Water Audit	1. Post instructions on website, provide home test kits for leaking toilets

Objective 3: Capital Investment

	Strategy	Action
1.3.1	Retrofit City Facilities	1. Retrofit City Hall restroom with water conserving fixtures

Goal 2: Water Quality Improvements

Objective 1: Public Information

	Strategy	Action
2.1.1	Send information to Public	1. Water bill insert for Household Hazardous Waste Collection Center
2.1.2	Information Displays	1. Storm Water Pollution Prevention posters at all trailheads
2.1.3	E-information	1. Provide Storm Water and Nonpoint Source Pollution Prevention information on Akron website 2. E-billing for water/sewer/curb service 3. Update APUB website
2.1.4	School presentations	1. City employees make school presentations on Storm Water and Nonpoint Source Pollution Prevention w/handouts

2.1.5	Public meetings	1. City employees make presentations at ward meetings and to community groups on Storm Water and Nonpoint Source Pollution Prevention w/handouts
2.1.6	Storm Water Pollution Prevention clinics	1. Hold instructional clinics for developers/contractors

Objective 2: Public Participation

	Strategy	Action
2.2.1	Pharmaceuticals Collection	1. Host Pharmaceuticals Collection events
2.2.2	Door Hangers	1. Storm Water Pollution Prevention door hangers
2.2.3	Rain Barrel Clinics	1. Provide instructional clinics for constructing rain barrels
2.2.4	Rain Garden Clinics	1. Provide instructional clinics for constructing rain gardens
2.2.5	Waterway Cleanup Days	1. Provide opportunities to cleanup waterways
2.2.6	Lawn Care Clinic	1. Hold instructional clinics on “greener” lawn care

Objective 3: Capital Investment

	Strategy	Action
2.3.1	New/Retro Storm Inlet Cast	1. Incorporate “Do Not Dump Waste (or “Don’t Dump) - Drains To Waterways” on inlet castings
2.3.2	Reduce stormwater runoff from City facilities	1. Incorporate “Green Infrastructure” practices - porous pavement, grass pavers, etc.
2.3.3	Reduce stormwater pollution on construction sites	1. Stricter City ordinances and plan standards

Goal 3: Alternative Energy Production/Use

Objective 1: Public Information

	Strategy	Action
3.1.1	Send information to Public	1. Provide information in water bill inserts, Akron City magazine
3.1.2	E-information	1. Provide alternative energy production information on Akron website

Objective 2: Public Participation

	Strategy	Action
3.2.1	Tours	1. Offer tour of facilities to general public
3.2.2	Contests	To be Determined
3.2.3	Public meetings	1. City employees make presentations at ward meetings and to community groups on Alternative Energy w/handouts

Objective 3: Capital Investment

	Strategy	Action
3.3.1	Convert Equip. to Alt Energy	1. Expand anaerobic sludge digestion to process all sludge and generate electricity from biogas
3.3.2	New Equip. use Alt. Energy/fuel	1. Purchase replacement vehicles, equipment and process equipment that uses alternative energy sources and/or alternative fuels

Objective 4: Alternative Energy Use

	Strategy	Action
3.4.1	Use Landfill Gas	1. Purchase/install dual fuel boilers that use landfill gas 2. Retrofit existing boilers with dual fuel burners that use landfill gas

Goal 4: Energy Conservation

Objective 1: Public Information

	Strategy	Action
4.1.1	Send information to Public	1. Provide information in water bill inserts, Akron City magazine
4.1.2	E-information	1. Provide energy conservation tips and information on Akron website

Objective 2: Capital Investment

	Strategy	Action
4.2.1	Energy Audit of Facilities	1. Conduct energy audit on water and wastewater facilities
4.2.2	Retrofit w/energy effic devices	1. Provide energy efficient motors, motor starters, power factor correction as identified by audit
4.2.1	New energy efficient devices	1. Provide energy efficient heating systems, lighting, windows, doors

Section VII

Summit County Green Team

Summit County / City of Akron Green Partnership

Summit County Green Team

County of Summit Executive Russell M. Pry created the Summit County Green Team in January 2008 and asked the Department of Community and Economic Development staff to coordinate the County Green Initiative. Efforts started with the formation of an Internal Green Team. The Summit County Green Team has been meeting since February 2008, and the following subcommittees have been formed:

1) Energy and Emission Subcommittee
2) County Fleet Subcommittee
3) Green Building Subcommittee
4) Recycling, Solid Waste & Procurement Subcommittee

The Subcommittees are charged with developing strategies for increasing the energy efficiency of county buildings and vehicle fleets, increasing waste recycling and pursuing greener procurement methods. Department of Development staff have been attending the monthly subcommittee meetings, in addition to organizing a monthly Green Team Steering Committee Meeting.

County Executive Russ Pry has directed his Department of Development planning staff to work cooperatively with the City of Akron on developing collaborative green plans for the county and city in the hopes of setting a standard for other governmental and private organizations. Since August 2008, Department personnel from the City of Akron have been attending the monthly Green Team County Fleet and County Green Building Subcommittee meetings. These are two key areas where cooperation between the County and the City of Akron should prove productive.

The County Green Team Fleet Subcommittee has added two members from the City of Akron Green Ribbon Committee to work on possible recommendations for both County and City. In addition, the County Green Building Subcommittee added two members from the City of Akron Green Ribbon Committee to work to encourage more sustainable and "greener" approaches to buildings that are constructed or remodeled in the County and City.

In conjunction with the County's efforts, County Councilwoman, Louise Heydorn, sponsored legislation to establish the Summit County Green Policy Task Force which was adopted by County Council in March 2008. In December 2008, County Council decided to extend the Task Force by 24 months.

The Summit County Green Team is working cooperatively with the Summit County Green Policy Task Force to develop green strategies and recommendations for the County. There is a Go Green Summit County website that has been a joint effort between County Council and the Executive's Office to promote more sustainable development policies in the County (http://www.co.summitoh.us/GoGreenSummitCounty.htm). And the Department of Development, Planning Division is working on an action plan for sustainability.

The Green Team recommended that Summit County join the EnergyStar Challenge, which it did on April 15, 2008. By joining the EnergyStar Challenge, Summit County is striving to realize a 15% decrease in energy use in county facilities by 2015.

Green Policy Task Force Recommendations to County Council and Executive Russ Pry

Extend the Task Force by 24 months to pursue the following initiatives:

1) Explore the feasibility of a construction demolition policy that requires recycling or re-use of 25% of debris generated from demolition of all government, commercial and industrial sites.

2) Using 2007 as baseline data, establish the goal of reducing electricity and natural gas usage in all County buildings by 15% by the year 2015.

3) Construct a plan for a green business certification program that would provide businesses with a step-by-step approach for achieving environmental sustainability and natural resource conservation.

4) Analyze successful, socially responsible Green Fleet policies and create a Summit County Green Fleet Policy by the end of 2009.

5) Explore the feasibility of establishing tax abatements for expanding or relocating businesses that clean up brown field sites located within Summit County.

6) Investigate the feasibility of creating model legislation or a model Memorandum of Understanding (MOU) that would encourage the use of economic incentives for businesses that create green jobs or show significant reduction in energy use; reduction and/or restoration of natural resources; or reductions in solid waste based on established standards.

7) Investigate the feasibility of establishing a County Office of Sustainability.

In September 2008, Summit County was recognized for its progressive Smart Growth land use policies in a National Association of Counties Green Government publication – "How Counties are Going Green: An Overview of NACo's Green Government Initiative." Summit County has been recognized as a Green County because of its progressive policies for Land Use and Conservation found in its Summit County General Land Use Development Plan.

The Summit County General Land Use Development Plan is listed in the NACo publication attached - "How Counties are Going Green: An Overview of NACo's Green Government Initiative." http://www.naco.org/Content/ContentGroups/Programs_and_Projects/Environmental1/Green_Government_Initiative/GreenGovernmentInitiativeOverview_Sept_1_08.pdf

City of Akron & Summit County Green Fleet Committee

The City of Akron's Green Ribbon Panel had established an Eco-Smart area for Smart Transit, led by Jerry Egan of the City of Akron. In March 2008 the Summit County Green Team created a Green County Fleet Subcommittee led by Bob Hollis. The group had the directive from the Summit County Council to pursue methods of improving air quality by increasing the County's use of alternative fuels and reducing the inefficient use of vehicles. The mayor of Akron and the Summit County executive had already pledged to work together as their appointed managers worked on studying what measures could be undertaken to reduce governmental impact on the environment. It became clear that both committees were grappling with the same issues of researching alternative vehicles and fuels, as well as studying government best practices on green motor equipment policies and using greener automotive products. In the spring of 2008, Rick Merolla asked Jeff Walck, Michael Shumway and Jerry Egan to join the county's committee to pool resources and eventually shared energy and emission reduction goals as they pertain to green fleets. Members of the County committee include the County Engineer, the County Sheriff and the County Executive's Office. These three divisions account for 514 of the 601 vehicles in the entire county fleet.

The committee has met ten times to-date. The group has established short term, medium and long term goals. County actions already completed include:

- Replacing 6 standard patrol cars with motorcycles for the Sheriff
- Programming diesel engines in the Engineer's fleet to turnoff after 15 minutes of idling
- Completing a 2007 baseline inventory of the county fleet covering: type of vehicle, fuel used, initial costs and life expectation. The County spent $1.1M on fuel in 2007 for 330,000 gallons of gasoline and 92,000 gallons of diesel.
- Research on alternative fuels ad lubricants, life cycle costs and vehicle options
- *The County Sherriff has switched to LED light bars on their patrol vehicles. These use less power, so the vehicle does not have to be idling whenever the lights are on

This has become a collaborative committee, with sharing of information and expertise. Each group is reports to their own elected officials who make the final decisions on purchases, policies ad procedures. They have heard testimony from experts about the relative quality of alternative fuels, shared vehicle case studies by staff from the Metro Parks and information from the County Fiscal office. The Akron committee has test driven electric vehicles. The group is now delving into Columbus and Cincinnati's Green Fleet Action Plans, to find more best practices. The County is completing

Committee members:

Bill Judge
Bob Hasenyager
Brad Whitfield
Duane Hawk
Helen Fusco
Jerry Egan
Jon Holland
Susan DeChant
Bill Muster
Bob Hollis
Brian Clark
Gus Kabarra
Jeff Walck
Joe Asher
Paula Davis

Target Action Area: Summit County Green Team – 3/27/09
Action Plan - Green Building Subcommittee

Goal 1: Establish/Recognize Green Building Standards for Construction

Objective 1: Identify Criteria for Residential Construction

	Strategy	Action	Responsibility	Timeframe	Funding level
1.1.1	General Review of Available Standards.	Review options regarding existing standards used by neighboring jurisdictions. Review other standards including nationally used criteria.			
1.1.2	Obtain data from area localities	Contact local building departments; discuss Green Building issues; obtain any policies	Specially designated Green Building Committee personnel	1-year	N/A
1.1.3	Review local agency criteria and adoption of standards to avoid conflicts, and to provide uniformity.	Coordinate with HBA and other local agencies for their input to assure agreement on basic issues, and to recognize "similar requirements" compatible with neighboring jurisdictions.	Specially designated Green Building Committee personnel	1 to 2 -years	N/A
1.1.4	Present recommendations to committee for comments and agreement.	Publish/distribute accepted list of standards for customer use in Green building.	Green Building Committee	1 to 2 -years	N/A

Target Action Area: Summit County Green Team – 3/27/09
Action Plan - Green Building Subcommittee – 2/24/09

Goal 1: Establish/Recognize Green Building Standards for Construction

Objective 2: Identify Criteria for Commercial Construction

	Strategy	Action	Responsibility	Timeframe	Funding level
1.2.1	General Review of Available Standards.	Review options regarding existing standards used by neighboring jurisdictions. Review other standards including nationally used criteria.			
1.2.2	Obtain data from area localities	Contact local building departments; discuss Green Building issues; obtain any policies	Specially designated Green Building Committee personnel	1-year	N/A
1.2.3	Review local agency criteria and adoption of standards to avoid conflicts, and to provide uniformity.	Coordinate with HBA and other local agencies for their input to assure agreement on basic issues, and to recognize "similar requirements" compatible with neighboring jurisdictions.	Specially designated Green Building Committee personnel	1 to 2 -years	N/A
1.2.4	Present recommendations to committee for comments and agreement.	Publish/distribute accepted list of standards for customer use in Green building.	Green Building Committee	1 to 2 -years	N/A

Target Action Area: Summit County Green Team – 3/27/09
Action Plan - Green Building Subcommittee – 2/24/09

Goal 1: Establish/Recognize Green Building Standards for Construction

Objective 3: Create model for sustainable building

	Strategy	Action	Responsibility	Timeframe	Funding level
1.3.1	Identify/select specific project(s) for residential and/or commercial model	Collaborate with government agencies, professional groups, and private builders/ developers to construct "demonstration" project.	Summit County, City of Akron, other local jurisdictions, NEO Green Building Institute, HBA, private builders/developers	1 to 2 -years	

Goal 2: Establish Incentives for Builders

Objective 1: Make "Green Building" a preference for builders

	Strategy	Action	Responsibility	Timeframe	Funding level
2.1.1	General benefits	Prepare information citing the benefits of "Green Building". This information will be from literature, product specifications, etc. and will be general in nature.	Specially designated Green Building Committee personnel	1 to 3 -years	To be determined
2.1.2	Local benefits	Coordinate with local agencies to try and provide some type of assistance, remuneration, rebate, or other tangible aid to the builder.	Specially designated Green Building Committee personnel	1 to 3 -years	To be determined
2.1.3	Benefits at other levels	Research other government and private agencies for incentives for "Green Building"	Specially designated Green Building Committee personnel	1 to 3 -years	To be determined

Target Action Area: Summit County Green Team – 3/27/09
Action Plan - Green Building Subcommittee – 2/24/09

Goal 3: Establish Role of Building Department

Objective 1: Promote "Green Building" Construction

	Strategy	Action	Responsibility	Timeframe	Funding level
3.1.1	Advertisement	Provide literature explaining the benefits of "Green Building" for the public (at building department). Host information type meetings explaining and promoting "Green Building".			
3.1.2	In-house displays	Install bulletin boards, magazine rack, other displays with technical information and latest industry developments	Designated Building Dept. personnel	In process, continuous	Operating Budget
3.1.3	Trade shows	Provide representation at local trade shows, Green promotional shows	Designated Building Dept. personnel	1 to 2 -years	Operating Budget
3.1.4	Technical assistance	Provide information, brochures, flyers, etc. and contacts for building products. Also provide references to other agencies involved in "Green Building".			
3.1.5	In-house displays	Install bulletine boards, magazine rack, other displays with technical information and latest industry developments	Designated Building Dept. personnel	In process, continuous	Operating Budget
3.1.6	Technical/informational seminars and updates	Host informal meetings for contractors, builders, general public to provide Green Building status updates. Provide information on our web site.	Designated Building Dept. personnel	1 to 2 -years	Operating Budget

3.1.7	Acknowlegement and recognition	Provide means to recognize builders who particpate in "Green Building". Also, provide acknowledgement of the completed construction as conforming to "Green". This may be through special notation on the CO or other document.			
	Pre-construction, upon plan submittal/ application	Issue questionaire to applicant requesting information as to intent (or not) to utilize Green building criteria (or portions thereof) in the proposed construction.	Building Dept. permit personnel (permit clerks)	Complete, continuous	Operating Budget
3.1.8	During construction	Provide placard/yard sign indicating green building in process	Building Dept. shall check into providing such signs to builders	1-year	Operating Budget
3.1.9	Upon issuance of Certificate of Occupancy	Record Green Certification (by third party) into Dept. records; add notation of such into CO	Building Dept. CO clerk	1-year	Operating Budget
3.1.10	Provide source data with ability to monitor (track) projects	Maintain list of Green Builders; maintain list of Green projects; post such information on bulletin board	Building Dept. personnel	1-year	Operating Budget
3.1.11	Departmental Training	Provide/promote training for department personnel (building inspectors,other designated personnel) to become certified in Green Building standards			
3.1.12	Commercial construction	LEED; other Green Building criteria such as Energy Star	Summit County Department of Building Standards, City of Akron, other local jurisdictions	1 to 2-years, continuous	Operating Budget
3.1.13	Residential construction	NAHB Model - Green Building Guidelines (ANSI Certified); LEED-H; other Green Building criteria such as Energy Star, HERS; NARI Green Certified Professional; NAHB; NAHB Certified Green Professional; etc.	Summit County Department of Building Standards, City of Akron, other local jurisdictions	1 to 2-years, continuous	Operating Budget

Target Action Area: Summit County Green Team - 3/27/09
Action Plan - Green Building Subcommittee - 2/24/09

Goal 4: Address Recycling and Sustainability Issues

Objective 1: Select Criteria for Residential Construction

	Strategy	Action	Responsibility	Timeframe	Funding level
4.1.1	General Review of Available Services	Identify local agencies providing services for recycling of construction materials			
4.1.2	Prepare listing of agencies providing recycling services, itemized by types of materials; identify fees; identify accessibility (pick-up, containers, time schedules, etc.)	Coordinate with Summit/Akron Solid Waste Management Authority. Post information on bulletin board. Add this information to our web site.	Specially designated Green Building Committee personnel (SASWMA member)	1-year	N/A
4.1.3	Prepare information in a form for posting/ distribution to clients and local HBA	Coordinate with local HBA for distribution to members, also include information on our web site.		1 to 2 -years	N/A
4.1.4	Prepare information concerning energy efficient materials, appliances, procedures for incorporation into Green Building	-Investigate energy conservation measures for construction (including structures and sites); review Energy Star information;	Specially designated Green Building Committee personnel	1 to 2 -years	N/A

Section VIII

Appendices

Appendix 1 – City of Akron Climate Protection Resolution

Appendix 2 - Community and Government Greenhouse Gas Emissions in 2005: Data Sources

Appendix 3 - Smart Area Templates

Appendix 4 - Federal and State Policies and Actions

Appendix 5 – U.S. Conference of Mayors

Appendix 6 – Rosters

Appendix 1 – City of Akron Climate Protection Resolution

Requested by the Department of Public Service

MAYOR AND COUNCILAS A [illegible]

Offered By [illegible]

RESOLUTION NO. 168 -2008 expressing support for the Cities for Climate Protection Campaign sponsored by ICLEI - Local Governments for Sustainability and encouraging Keep Akron Beautiful to take a leadership role in promoting public awareness about the causes and impacts of climate change; and declaring an emergency.

WHEREAS, scientific consensus has established that carbon dioxide (CO2) and other greenhouse gases released into the atmosphere have a profound effect on the Earth's climate; and

WHEREAS, 162 countries, including the United States, pledged under the United Nations Framework Convention on Climate Change to reduce their greenhouse gas emissions; and

WHEREAS, energy consumption, specifically the burning of fossil fuels, accounts for more than 80 percent of the United States greenhouse gas emissions; and

WHEREAS, local governments influence communities' emissions by exercising key powers over land use, transportation, construction, waste management, and energy management; and

WHEREAS, local government actions taken to reduce greenhouse gas emissions and increase energy efficiency provide multiple local benefits by decreasing air pollution, creating jobs, reducing energy expenditures, and saving money for the local government, its businesses and its residents; and

WHEREAS, ICLEI - Local Governments for Sustainability is an international membership association of local governments dedicated to addressing environmental issues through local action; and

WHEREAS, more than 350 cities, towns, and counties in the United States and more than 770 communities worldwide, are ICLEI members and participate in the Cities for Climate Protection (CCP) Campaign to reduce the pollution that causes global warming; and

WHEREAS, the City of Akron has been invited to become a partner in the CCP Campaign; and

WHEREAS, ICLEI provides programs, tools, software assistance and technical expertise to help local governments quantify and reduce their greenhouse gas emissions; and

WHEREAS, the Cities for Climate Protection (CCP) Campaign consists of five milestones:

Milestone 1. Conduct a local inventory and forecast of greenhouse gas emissions
Milestone 2. Adopt an emissions reduction target
Milestone 3. Draft an action plan to achieve the target
Milestone 4. Implement the action plan
Milestone 5. Evaluate, report on progress, and update plans

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Akron:

Section 1. That Council hereby expresses support for the Climate Protection Campaign sponsored by ICLEI - Local Governments for Sustainability and authorizes Keep Akron Beautiful, on behalf of the City of Akron, to take a leadership role in promoting public awareness about the causes and impacts of climate change and to seek the assistance of the CCP Campaign when necessary.

Section 2. That Council hereby adopts the Greenprint for Akron, a copy of which is attached as Exhibit A, designed to assist in creating an environmental partnership to foster a sustainable, eco-friendly community through education and leadership.

Section 3. That this resolution is hereby declared to be an emergency measure necessary for the immediate preservation of public peace, health, safety and welfare for the reason that immediate action is needed to create more vibrant and sustainable communities, and provided this resolution receives the affirmative vote of two-thirds of the members elected or appointed to Council, it shall take effect and be in force immediately upon its passage and approval by the Mayor; otherwise, it shall take effect and be in force at the earliest time allowed by law.

Passed March 31, 2008

Clerk of Council

President of Council

Approved April 7, 2008

MAYOR

The Greenprint for Akron

Mission Statement

Greenprint for Akron creates an environmental partnership to foster a sustainable, eco-friendly community through education and leadership.

Vision Statement

The *Greenprint for Akron* sets a vision for a sustainable community that contributes to climate and environmental protection which will create opportunities for a healthier quality of life and economic growth.

To implement the *Greenprint for Akron*, the City will:

- Encourage and educate businesses and residents to embrace energy efficiency and conservation;
- Lead by example by implementing policies, practices and benchmarks within City government;
- Monitor and verify the results of increased energy efficiency using the ICLEI toolkit;
- Work with the community to explore new policy areas, make recommendations for investment and advocate for implementation of the mission and vision.

Action Areas for Akron's Eco-Smart Campaign

Action Plans to implement the vision by 2012 (5 years) will be written in the following areas:

Smart Energy & Emissions

Air Quality, Alternative Energy, Energy Efficiency, Green Rooftops, Green Build (LEEDS Certification Program), Energy Star, Advocating for Energy Audits, Employee Incentive Programs for Reducing Energy

Smart Water & Wastewater Management

Water Quality, Water and Wastewater Systems, Methane Recovery for Energy Production, Waste Sludge to Energy Production, Storm Water Pollution Prevention, Water Conservation

Smart Materials & Solid Waste Management

Environmental Purchasing, Commercial and School Recycling, Curbside Recycling, Reducing Consumption of Natural Resources, Composting

Smart Transit

Mass/Rapid Transit, Creating Walkable Urban Neighborhoods, Promotion of Bicycle Lanes/Trails, Green Map, Carpooling, Conversion of Municipal Fleets, Efficient Traffic Control

Smart Development

Neighborhood Revitalization, Brownfield Recapture, Reduce Urban Sprawl, Creating Walkable Urban Neighborhoods, Land Banking, Adaptive Reuse, Green Job Growth

Smart Conservation of Natural Resources

Urban Forestry, Preserving Streams/Watersheds, Preserving Open Spaces, Park Systems

Smart Community Education and Promotion of Progress

Educating Youth, City Staff Training, *Greenprint* Reporting, Clearinghouse for Climate Change, Community Engagement, Assisting companies striving to be sustainable

To: Mike Keenan

CITY OF AKRON
DEPARTMENT OF LAW
RECEIVED
07 PM 6:03

TO: Dave Lieberth
Rick Merolla
FROM: Paula Davis
DATE: March 13, 2008
RE: Greenprint Resolution Before City Council

See attached a sample **ICLEI Resolution** that is required to be passed within the next 6 months, per ICLEI membership criteria. We can change it as we see fit.

Also attached is a *draft* of **The Greenprint Plan**. I would like to incorporate the mission, vision and seven action areas into the resolution that goes before the City Council to pass-thus combining the required ICLEI participation in the Cities for Climate Protection and the Council's approval of our work towards five year goals, based on the future ICLEI survey findings.

I can draft up my version and submit it to you. I need direction on how you would like me to proceed. I would like to present this to Council in April, in conjunction with Earth Day, LightsOut, Clean Up Akron Week, Arbor Day, etc. How does that happen?

City Of _____
Sample Resolution Participation in the Cities for Climate Protection™ Campaign

WHEREAS, scientific consensus has developed that Carbon Dioxide (CO2) and other greenhouse gases released into the atmosphere have a profound effect on the Earth's climate; and

WHEREAS, in 2003 the American Geophysical Union adopted a Statement noting that human activities are increasingly altering the Earth climate and that natural influences cannot explain the rapid increase in near-surface temperatures observed during the second half of the 20th century; and

WHEREAS, in 2001, at the request of the Administration, the National Academy of Sciences (NAS) reviewed and declared global warming a real problem caused in part by the actions of humankind; and

WHEREAS, the 2001 Third Assessment Report from the International Panel on Climate Change (IPCC) and the 2000 U.S. Global Change Research Program's (USGCRP) First National Assessment indicate that global warming has begun; and

WHEREAS, 162 countries including the U.S. pledged under the United Nations Framework Convention on Climate Change to reduce its greenhouse gas emissions; and

WHEREAS, energy consumption, specifically the burning of fossil fuels, accounts for more than 80% of U.S. greenhouse gas emissions; and

ICLEI

Local Governments for Sustainability

What is ICLEI?

ICLEI – Local Governments for Sustainability is an international membership association of local governments dedicated to addressing environmental issues through local action. More than 350 cities, towns, and counties in the United States—and more than 770 communities worldwide—are ICLEI members and participate in the Cities for Climate Protection® (CCP) Campaign to reduce the pollution that causes global warming. ICLEI provides programs, tools, software assistance and technical expertise to help local governments quantify and reduce their greenhouse gas emissions.

ICLEI's Cities for Climate Protection® (CCP) Campaign consists of through five milestones:

Milestone 1. Conduct a local inventory and forecast of greenhouse gas emissions
Milestone 2. Adopt an emissions reduction target
Milestone 3. Draft an action plan to achieve the target
Milestone 4. Implement the action plan
Milestone 5. Evaluate, report on progress, and update plans

Drawing on our 15 years of experience in the field of climate protection, **local governments** in the United States and around the globe are achieving significant greenhouse gas emissions reductions, and in so doing reducing energy usage, saving money, increasing air quality, protecting public health and creating more vibrant and sustainable communities. ICLEI stands ready to welcome your local government to this growing network of climate protection leaders with the tools and resources necessary to help you every step of the way.

How to Become a Member...

Step 1: Complete a membership application designating a primary elected official, staff official and internal media contact to liaise with ICLEI on a variety of issues, resources and opportunities and providing background information regarding your local government.

Population	Annual Dues
1 to 50,000	$600
50,001 to 100,000	$1,200
100,001 to 200,000	$1,750
200,001 to 300,000	$2,250
300,001 to 500,000	$2,750
500,001 to 750,000	$3,500
750,001 to 1,000,000	$4,500
1,000,001 to 2,000,000	$5,750
2,000,001 to 4,000,000	$7,000
Over 4,000,001,000	$8,000

Step 2: Pay first installment of annual dues upon receipt of an invoice from ICLEI, or along with your application.

Step 3: Adopt a resolution to participate in an ICLEI campaign within the first six months of membership in order to affirm your community's commitment to climate protection work. Each member is encouraged to modify the resolution to match local circumstances and priorities.

Step 4: Get started with your climate protection work by involving stakeholders, publicizing your membership, and starting Milestone 1, the inventory of energy use and emissions.

For more information about ICLEI-Local Governments for Sustainability or to become a member, please contact: Katherine Jarvis-Shean, ICLEI Membership Officer, at Katherine.jarvis-shean@iclei.org.

Environmental Purchasing, Commercial and School Recycling, Curbside Recycling, Reducing Consumption of Natural Resources, Composting

Smart Transit

Mass/Rapid Transit, Creating Walkable Urban Neighborhoods, Promotion of Bicycle Lanes/Trails, Green Map, Carpooling, Conversion of Municipal Fleets, Efficient Traffic Control

Smart Development

Neighborhood Revitalization, Brownfield Recapture, Reduce Urban Sprawl, Creating Walkable Urban Neighborhoods, Land Banking, Adaptive Reuse, Green Job Growth

Smart Conservation Of Natural Resources

Urban Forestry, Preserving Streams/Watersheds, Preserving Open Spaces, Park Systems

Smart Community Education and Promotion of Progress

Educating Youth, City Staff Training, *Greenprint* Reporting, Clearinghouse for Climate Change, Community Engagement, Assisting companies striving to be sustainable

Appendix 2 – Community and Government Gas Emissions in 2005 Data Sources

APPENDIX 2 – DATA SOURCES

Community Emissions Inventory Source Data for 2005

Community Aggregate Utility Data

Electricity Data: Electricity usage data was obtained by adding the usage for all accounts that were located within the Akron political boundary. Data was obtained from First Energy.

Contacts:
George Skulus, Senior Business Analyst - First Energy
Dennis Prough, Area Manager – Akron - Ohio Edison

Natural Gas Data: Natural Gas usage data was obtained by adding the usage for all accounts that were located within Akron zip codes. Note: Zip codes do not follow political boundaries so numbers reported may include usage outside of the City of Akron boundary. Data was obtained from Dominion.

Contact:
Tracy Stevens, External Affairs Manager - Dominion East Ohio

Steam Data: Steam usage data had to be entered by the fuel type used to generate the steam. The amount of each type of fuel (coal, wood, natural gas, tires, waste oil) used by Akron Thermal to generate steam was obtained from Frank Markunas, Akron Air Quality Management.

Contact:
Frank Markunas - Akron Air Quality Management

Community Transportation Data

Daily Vehicle-Miles for the Akron Area from the Federal Highway Administration Website - 2005 Highway Statistics Section V was obtained by contacting the Akron Metropolitan Area Transportation Study (AMATS) Office.

The daily VMT data reported in the statistics was for the Akron area, not just for the Akron jurisdictional limits. The data was converted to the Akron jurisdictional area only, as suggested by Ayrin Zahner of ICLEI, by obtaining the mileage of roads in Akron only broken down by type of road and calculating the proportion of roadway in Akron's jurisdiction by dividing the miles of road in Akron's jurisdiction by the total miles of road reported in the statistics for each road type. The VMT data reported for the area was multiplied by the proportion for each road type to convert the data to Akron's jurisdiction only. The Daily VMT was multiplied by 365 days to get a VMT for the whole year, and the VMT for the whole year for each road type was added to get a VMT total for 2005.

An Excel spreadsheet was used to make the calculations. A printout of the spreadsheet is included in the inventory data binder.

The 2005 VMT total was input into the Transportation Assistant. The default fuel/vehicle split was used.

Contacts:
Jeff Gardner and Amy Prater AMATS
Ayrin Zahner - ICLEI

Community Waste Data

The City does not currently track the amount of waste collected within the City limits. Waste data was taken from an annual OEPA report that was provided by the Summit/Akron Solid Waste Management Authority (SASWMA) for all of Summit County. The data in the report was not broken down by municipality. Percentages of the waste contributed by Akron only were estimated using U.S. Population Census and Economic Census data reported for Summit County and Akron.

The Waste Share percentage data was taken from a Waste Characterization Study issued by the Ohio Department of Natural Resources Division of Recycling & Litter Prevention. The study data was provided by SASWMA.

Contacts:
Yolanda Walker and Marcie Kress - SASWMA

Community Other Data

Hardy Road Landfill Emissions Data – The actual emissions data for the closed landfill was obtained from the Akron Regional Landfill 2005 Annual Air Emissions Report. Steve Dubetz of Public Works Engineering Services provided a copy of the report.

Contact:
Steve Dubetz - Public Works Engineering Services

Coal Usage Data - Emissions data for facilities located within the City of Akron that burned coal was obtained from the "Title V Annual Fee Emissions Reports for 2005". Title V is a Federal/USEPA mandated permit program for major polluters administered by OEPA and its contractual agents. The Akron Air Quality Management Division is a contractual agent for OEPA. The report was obtained from the Air Quality Management Division. Emissions for coal usage at Cargill, Incorporated, Noveon Akron Chemical plant, and the Goodyear Tire & Rubber Company are included.

Contact:
Frank Markunas – Akron Air Quality Management

Government Operations Emissions Inventory Source Data for 2005

Government Operations Building Data

Sub-sectors: Community Centers, Fire Stations, Office Facilities, Parking Decks, Parks, Service Facilities, Miscellaneous

Electricity and Natural Gas Data: The First Energy and Dominion account numbers and facility addresses were obtained from a list of all City account numbers generated from utility bill payment spreadsheets provided by the Accounting Department. The electricity and gas usage information was provided by First Energy and Dominion through a query of the account numbers in their records.

First Energy also provided the cost of the electricity for each account number. The cost of the natural gas was calculated by multiplying the usage by the average cost natural gas in 2005, $10.59 per mcf, provided by Dominion.

The facility located at each account address was identified using the address, account descriptions, and the Akron GIS system.

Contacts:

Cindy Donel – Accounting
George Skulas, Senior Business Analyst - First Energy
Dennis Prough, Area Manager Akron - Ohio Edison
Tracy Stevens, External Affairs Manager - Dominion East Ohio

Steam Data: The Akron Thermal account numbers and costs were obtained from copies of bills provided by the Accounting Department. Facility addresses were obtained by calling Akron Thermal.

Data had to be entered by the fuel type used to generate the steam. The steam usage information for the City facilities in M-LBS had to be converted to fuel type used. The total amount of each type of fuel (coal, wood, natural gas, tires, waste oil) used by Akron Thermal to generate steam in 2005 was obtained from Frank Markunas, Akron Air Quality Management Division. The total amount of steam produced by Akron Thermal in 2005 was obtained from Wade Woods of Akron Thermal by Frank Markunas.

The amount of each fuel used to generate one M-LB of steam heat in 2005 was calculated by dividing each amount of fuel used by the total amount of steam generated in 2005. The usage for each City account was multiplied by the fuel type/ M-LB ratio for each fuel type to calculate the amount of each fuel used to generate the steam used. The amount of each fuel used was entered into the software for each account. A printout of the spreadsheet used to make the calculations for each account is included in the inventory data binder.

Contact:

Cindy Donel - Accounting
Frank Markunas – Akron Air Quality Management
Wade Woods - Akron Thermal

Building data, including operating hours, number of occupants, and floor area, was obtained from Building Maintenance.

Contacts:

Randy Rose and Tom Harris Building Maintenance

Government Vehicle Fleet Data

Sub-sectors: Equipment, Auto - Full-Size, Auto Mid-Size, Auto – Sub-Compact/Compact, Heavy Trucks, Light Trucks/SUVs/Pickups, Motorcycles, Passenger Vehicles, Vanpool Vans

Equipment type, mileage, fuel quantity, and fuel cost information was obtained from the City of Akron Motor Equipment Bureau Vehicle Database. The data was compiled by the MIS Division.

The mileage for the City's contracted trash routes was estimated using route maps provided by Sanitation. The route map boundaries were also included in the City's GIS system. The GIS system was used to calculate the miles of roadway traveled by the contracted trash route trucks each week and then that number was converted to the number of miles traveled each year.

Contacts:

Jeff Walck - Motor Equipment
Jeff Crawford – MIS
Fabian Lujan - Sanitation

Employee Commute Data

The City Accounting Department generated daily commute data in miles from the commute information that is used to determine the payroll deduction for employees that drive a City car to and from work. An average of the daily commute miles was calculated. The average distance in miles was multiplied by the number of City employees in 2005 (obtained from the Personnel Department) less the number of employees that drive City cars, and multiplied by the number of working days (235 days) to get an estimate of the total employee commute miles. A breakdown by fuel type and vehicle type was not available. A midsize gasoline vehicle was used as an estimate. Note: This estimate includes employees that may utilize public transit, carpool, or other forms of transportation in the calculation.

Contact:

Cindy Donel - Accounting

Streetlights Data

Sub-sectors: Street Lights, Private Outdoor Lighting, Traffic Lights, Parking Lot

The First Energy account numbers and facility addresses were obtained from a list of all City account numbers generated from utility bill payment spreadsheets provided by the Accounting Department. The electricity usage information was provided by First Energy through a query of the account numbers in their records.

First Energy also provided the cost of the electricity for each account number.

The facility located at each account address was identified using the address, account descriptions, and the Akron GIS system.

Contacts:

Cindy Donel -- Accounting
George Skulas, Senior Business Analyst - First Energy
Dennis Prough, Area Manager Akron - Ohio Edison

Water/Sewage Data

Sub-sectors: Sewer CSO Racks, Sewer CSO Sampling Stations, Sewer Operation Facilities, Sewer Pump Stations, Water Operation Facilities, Water Tank & Pump Stations

The First Energy and Dominion account numbers and facility addresses were obtained from a list of all City account numbers generated from utility bill payment spreadsheets provided by the Accounting Department. The electricity and gas usage information was provided by First Energy and Dominion through a query of the account numbers in their records.

First Energy also provided the cost of the electricity for each account number. The cost of the natural gas was calculated by multiplying the usage by the average cost natural gas in 2005, $10.59 per mcf, provided by Dominion.

The facility located at each account address was identified using facility lists obtained from Sewer Maintenance, Public Utilities Bureau Utilities Engineering Division, the Water Plant and the Akron GIS system.

The quantity of wastewater treated and diesel fuel usage information was obtained from WPCS. The sewer pump station flow information was provided by Sewer Maintenance.

The quantity of water treated and diesel fuel usage information was obtained from Jeff Bronowski, Water Plant Engineer. The water pump station flow information was provided by the Public Utilities Bureau Utilities Engineering Division.

Contacts:

Cindy Donel – Accounting
George Skulas, Senior Business Analyst - First Energy
Dennis Prough, Area Manager - Akron - Ohio Edison
Dan Joseph – Sewer Maintenance
Gregg Loesch - PUB Utilities Engineering
Brian Gresser - WPCS Administrator
Jeff Bronowski - Water Plant

Other Data

Akron Fulton Airport – The emissions data was taken from an inventory for the airport obtained by Frank Markunas, Air Quality Division, from William Nichols, OEPA Division of Air Pollution Control.

Contacts:

Frank Markunas – Akron Air Quality Management
William (Nick) Nichols - OEPA Division of Air Pollution Control

Appendix 3 – Smart Area Templates

Template Clarification- [10-20-08]

ESA – Economic Stimulus Appropriation

Smart Community Education & Promotion of Progress

E4S - Entrepreneurs for Sustainability
ICLEI-International Council on Local Environemtal Initiatives, it is now officially ICLEI-Local Government for Sustainability
RFP-Request for Proposal
SID-Special Improvement District
SI-Sustainability Implementation

Smart Conservation of Natural Resources

COA – City of Akron
GIS- Geographic Information System
ODNR-Ohio Department of Natural Resources

Smart Development

AMATS TIP- Akron Metropolitan Area Transportation Study Transportation Improvement Program
BOE- Board of Education
BOMA-Building Office Management Association
DPUD – Department of Planning &Urban Development
ED-Economic Development
HBA-Home Building Association
HUD – Housing & Urban Development
JEDD-Joint Economic Development District
MOED - Mayor's office of Economic Development;
NAIHOP - Mayor's office of Economic Development
NAIOP - National Association of Industrial and Office Properties

Smart Energy & Emissions

BMD-Building Maintenance Division
CIP- CIP-Capital Improvement Program City of Akron
CLC-Community Learning Centers
EPA-Environmental Protection Agency
ICLEI- Local Government for Sustainability
LEED- Leadership in Energy and Environmental Design
OBBC- Ohio Basic Building Code

Smart Materials & Solid Waste Management

BMD-Building Maintenance Department
DAP- Downtown Akron Partnership
SASWMA-Summit/Akron Solid Waste Management Authority

Smart Transit

AMATS-Akron Metropolitan Area Transportation Study
CBD- Central Business District
LED-DPUD-Light Emitting Diodode - Department of Planning & Urban Development
ROW- Right of Way
UPA-University Park Alliance

Smart Water & Wastewater Mgmt.

AEB- Akron Engineering Bureau
APUB –Akron Public Works Bureau
IT- Information Technology
OEPA-Ohio Environmental Protection Agency
SSWCD-Summit County Soil and Water Conservation District

Action Area: Smart Community Education & Promotion of Progress			Owner: Paula Davis			
#	Strategy	Action	Responsibility	Time frame	Estimated Cost	Funding Source
Goal 1: Educate the government and community about strategies for reducing global warming and conserving resources.						
Objective 1: The city becomes a model and acts as a catalyst for professional associations, business and industry to reduce global warming and conserve natural resources.						
1.1.1	Provide a physical example of green building, as a showcase of green building practices	Retrofit the Municipal Building to be LEED certified, followed by Municipal Service center, Central Service Facility, Copley Road Service Depot, and/or Harold K. Stubbs Bldg. (or build new)	City of Akron	2009-2010	$8,100,000- and up	Economic Stimulus
1.1.2	Promote and support office place recycling and sustainability programming in Akron	1. Help E4S to promote monthly forums of members meeting in downtown Akron	E4S/KAB Task Force	2008-forward		Economic Dev./ Private Sector
		2. Working partnership with Downtown Akron Partnership (DAP), Summit-Akron Solid Waste Management Authority (SASWMA) to facilitate recycling within the SID through a Phase I (restaurants) & II (office buildings)	SASWMA/ DAP/ KAB/ Building Maintenance Department (BMD)	2008-forward	Phase I pilot-$2,600, Phase II-?	SASWMA, Downtown Akron Partnership
		3. Explore a partnership with Summit County to create a web-based commercial business site to assist offices in becoming sustainable. May evolve into a competitive, certification program.	KAB/ City Service Department/Summit County Green Team & Sustainability Task Force/County DOD	2009-on	$100,000 +	Economic Stimulus/ Private Sector Sponsorship
1.1.3	Establish The Greenprint for Akron annual awards program to showcase sustainable practices and entrepreneurship within the Akron business community	1. Host a media event to present awards in categories for organizations, individuals and businesses.	KAB / City Service Department/Mayors Office	Annually- November, Recycle America date	$100,000	City and private sector sponsors

		2. Explore the possibility of working with the Summit County Green team and Policy Task Force to make this a county-wide recognition program.	KAB/City Service Department/County Green team/County Council Sustainability Task Force	Summer 2009, for a November ceremony, occurring annually	$100,000	City and County with private sector sponsors
1.1.4	Assist the Canal Park Stadium in the expansion of their recycling program in-house, to involve the baseball fans	1. Assemble a team to help the stadium management to move beyond mixed office paper and corrugated to recycling to bottles, cans and plastics	SASWMA,/DAP/BMD/ KAB	Season 2008, 2009 adding Menches Restaurant	$2,100	City Building Maintenance Department
1.1.5	Identify training opportunities for Akron businesses on energy efficiency	1. Promote E4S-SI trainings	KAB, Service Department, E4S	2009	Membership Fee	Economic Development
		2. EnergyStar Portfolio Manager	BMD/Engineering	2009	0	
1.1.6	Expand the Keep Akron Beautiful loan program from portable trash receptacles to prevent litter to recycling receptacles for plastic beverage bottles	Write a grant to cover the collection receptacles and liners that would be loaned out to Akron groups hosting age civic events to encourage recycling habits	KAB	2009	$10,000	Keep America Beautiful, Inc./ Nestle
1.1.7	Keep Akron Beautiful staff member serves on Community Gardening Committee for City of Akron	Attend meetings, consult and train as needed	KAB/City Planning Department/ Health Department/Engineering Department	2009-on	TBD	City of Akron

Objective 2: Educate City of Akron employees and other jurisdictions about reducing global warming pollution and conserving natural resources						
1.2.1	Create an incentive system for City employees to offer their energy saving ideas	1. Set a reward system of recognition for Department Heads, Managers, Supervisors and Associates with the new ideas that save the most energy and money	KAB/ Service Department	2009	$1,000	City Service Department
1.2.2	Select and purchase a training module on the importance of climate protection activities to show to all new City of Akron employees	1. Use during new hire orientations and as a continuing education activity, similar to safety training exercises currently done	KAB/City Human Resources	2009	$1,000	City Service Department
1.2.3	Do a recycling audit of all city of Akron buildings to assess the level and success of in-house recycling. Move to a better tracking system building by building and set up competitions between employees	Monitor in-house recycling program statistics and set goals for increasing quantity of recyclables collected. Explore new contract for mixed paper revenue in 2010	KAB/SASWMA/BMD/ Sanitation	2009	$4,000	City Service Department/ Economic Stimulus
1.2.4	Support in-house training of green practices of specific Eco-Smart strategies and actions so they can be implemented	1. Identify training sources and distribute to city employees who would benefit	Green Ribbon Panel/KAB	2009	Training costs	City Service Department
Objective 3: Reach Akron's youth about the importance of reducing global warming pollution						
1.3.1	Facilitate the use of Bs E3 Smart hands-on modules for classroom presentations to Akron's public, private and charter classrooms on energy efficiency	1. Developed a hands-on 40 minute module to teach energy efficiency using the Ohio Energy Project curriculum and target 6th grade teachers and their students. Distributed over 1,700 Home Energy Kits for all APS 6th grade families	KAB/Ohio Energy Project (OEP)/Akron Public Schools (APS)/Private and Charter School Administrations	Spring semester 2009	$50,000	OEEF, Ohio EPA's Environmental Education Fund grant
		2. Write a competitive grant to repeat the curriculum and Home Energy Kit distribution for all Public, private and charter school 6th graders spring semester 2010	Keep Akron Beautiful /OEP (Ohio Energy Project/APS (Akron Public Schools	Fall 2009	$50,000	Economic Stimulus

		3. Explore opportunities to assist Summit County Economic Development/SASWMA in writing a similar grant to cover all 6th graders in Summit County	SASWMA (Summit Akron Solid Waste Management Authority), KAB	Fall 2009	Dependant on number of students	Economic Stimulus
1.3.2	Promote secondary schools energy efficiency curriculum through the use of 2 energy bikes now in the public schools. Purchase more bikes to expand the program	1. Write a grant to purchase more bikes and to conduct training sessions for secondary science teachers in public, private and charter schools	KAB/OEP/APS	2009	$25,000 +$250 for training 2010: $15,000 +$250 for training	Grant Funding
1.3.3	Send Akron secondary teachers to the summer Ohio Energy Sources Tour	1. Write more grants to send teachers on this state of Ohio tour	Keep Akron Beautiful /OEP	2009	2009 - $7,200 grant funds	Grant Funding
1.3.4	Engage the Akron Public Schools Administration in discussions to set up a system-wide recycling program	1. Assemble the necessary parties to begin meeting to find a cost-effective solution for recycling selected commodities across the district	KAB/APS Administration/ Sanitation/SASWMA	Began talks October, 2008-2009	Grant funds for collection receptacles, student educational materials	Akron Public Schools, grant funding
1.3.5	Promote student volunteerism to complete the actions in each of the 8 Smart Action Areas	1. Create student Environmental Clubs to work with school building administration to set building goals, plan action and monitor success	KAB Staff/Science Faculty- public & private schools/Building Principals & Facility Maintenance Staff	2009	0	
1.3.6	Continue Arbor Day observation in the public/ private/charter schools	1. Distributing 2,500seedlings to all Akron 4th graders.	KAB/Engineering	2009-forward	$2,000	Keep Akron Beautiful, City Service Department
1.3.7	ArtsLift Summer 2009 Project	1. Promote the rain Barrel art and education project for 10+ youth and the subsequent auction of their work. Offer a public Rain Barrel Clinic	KAB collaborates with ArtsLift (University of Akron), City Water Department, City Engineering	Summer 2009	$23,000	Grant Funding, Summit Master Gardeners, Lol Isroff Foundation, KAB

#	Strategy	Action	Responsibility	Time frame	Estimated Cost	Funding Source
GOAL 2: Create a Greenprint Plan for Akron						
Objective 1: Providing opportunities for the community to become engaged to reach The Greenprint for Akron goals						
2.1.1	The Greenprint Task Force of the Keep Akron Beautiful Board of Directors bringing together a community partner group to consult on the Greenprint plan	1. Make a complete list of partners and ask representatives to serve to a citizen-work group	KAB Board of Directors/ Task Force/Mayors Office	2009	0	
2.1.2	Write a Request for Proposals for an effective public relations strategy to promote and educate the behavior changes required to have an effective Greenprint for Akron	1. Write a RFP and select an agency to assist the Board of Directors with a multi-media plan	KAB Board of Directors-Task Force	2009	$200,000	City of Akron
2.1.3	Engage the services of a environmental consultant to assist with the writing of a professional sustainability plan that will have achievable goals once the ICLEI benchmarking is done and the percentages of reduction set.	1. Work with Affinity Consultants	KAB Board Task Force	2008-2010	$5,000-10,000 annually	Keep Akron Beautiful
2.1.4	Create a tracking and measurement system to monitor City progress towards Greenprint Plan targets	1. Educate Green Ribbon Panel members on the ehsOnline site to update regularly Smart areas	Green Ribbon Panel/ Affinity Consultants/KAB	2008-2010	$140/month	Keep Akron Beautiful
		2. Plan to re-do the ICLEI Survey to gauge progress towards GHG reduction targets	KAB/City Engineering Department	2013	Engineers Time	Environmental Engineering
		3. Work with City Environmental Engineers to assign estimated greenhouse gas (GHG) reductions to measures taken by the city/ community since 2005 baseline year (2006-2009)	KAB/ Service Department	2009	Engineers Time	Environmental Engineering

		4. Work with City Environmental Engineers to assign GHG reduction figures to proposed action items in the Greenprint Plan to assist with prioritizing	KAB/Service Department	2009	Engineers Time	Environmental Engineering
2.1.5	Create opportunities for public dialogue about the written Greenprint plan: goals, objectives, strategies and actions	1. Present first draft Plan to Mayors/ Service Directors Office	KAB/Mayors Office	Late 2008	$1,765	Keep Akron Beautiful
		2. Review draft plan with Akron City Council	KAB/Council President	2009	0-Pre-meeting dinner Caucus	
		3. Plan to post draft plan, calendars of meetings, events at ehsOnline site	KAB Board Task Force/ Affinity Consultants	2008-2010	0, Monthly fee	Keep Akron Beautiful
		4. Have a community calendar of activities related to each Action Area	KAB	2009-forward	Agency Website Fees	Keep Akron Beautiful
		5. Seek support from community groups and Greenprint database	KAB	2008-forward	Civic	Keep Akron Beautiful

#	Strategy	Action	Responsibility	Time frame	Estimated Cost	Funding Source
Goal 3: Promote progress towards the Greenprint for Akron goals and track targeted greenhouse gas reductions.						
Objective 1: Utilize ehsOnline to plan and share Greenprint Plan components						
3.1.1	Update narratives, successes and template actions plans once a month	Train Green Ribbon Panel members to effectively use ehsOnline.	Green Ribbon Panel/ Affinity Consultants/KAB	2008-2011	$140/month	Keep Akron Beautiful
Objective 2: Keep Akron Beautiful coordinates Green Ribbon Panel/Greenprint Plan						
3.2.1	Facilitate City of Akron Green Ribbon Panel	1. Continue to meet regularly to share and hear speakers.	KAB/Green Ribbon Panel	2009 on	N/A	N/A
		2. Meet with Smart Area Point People to set City policy and priorities.	KAB/Green Ribbon Panel	2009 on	N/A	N/A
3.2.2	Produce annual scorecard of Greenprint progress toward goals	1. Plan to re-do the ICLEI Survey to gauge progress towards GHG reduction targets.	KAB/City Engineering Department	2013	Engineers Time	Environmental Engineering
		2. Work with City Environmental Engineers to assign estimated greehouse gas (GHG) reductions to measures taken by the city/ community since 2005 baseline year (2-6-2009).	KAB/Service Department	2009	Engineers Time	
		3. Work with City Environmental Engineers to assign estimated greenhouse gas (GHG) reduction figures to proposed action items in the Greenprint Plan to assist with prioritizing.	KAB/Service Department	2009	Engineers Time	
		4. Explore innovative system of tracking/measurement using GIS system per Affinity Consultants.	KAB/Affinity Consultants	2009 on	$150,000	Grant funding

Action Area: Smart Conservation of Natural Resources			Owner: Jon Malish/Bill Hahn		
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs/ Funding
Goal 1: Preserve and Improve the Urban Forest for Future Generations					
Objective 1: Inform the public of the many benefits of trees and how they enhance the community's quality of life					
1.1.1	Formulate a sustainable mission statement and public tree policy with an emphasis on public safety, tree preservation, and an accelerated tree planting program.	1. Implement the Comprehensive Street Tree Policy to deal with sewer and water laterals, raised sidewalks, and all other utilities in the public right-of-way.	Engineering and Public Works	Spring 2008 in progress	$0
		2. Improve the canopy density by preserving existing trees through a root pruning program to prevent damage to infrastructure.	Engineering and Public Works	Spring 2009	$30,000
		3. Create an Urban Forestry Manual which will define best practice for a blue print for tree planting, maintenance, and selection.	Engineering and Public Works	Spring 2009	$0
1.1.2	Update the City of Akron's Tree Ordinances	1. Create a Nuisance Tree ordinance.	Engineering, Public Works, Service Directors Office, Law Department.	Spring 2009	$0
1.1.3	Expand the Tree Planting Program by incorporating bare root material.	1. Initiate a volunteer tree planting Engineering program.	Engineering	2009	$20,000

Objective 2: Adopt additional end uses for urban timber to stimulate the arts, employment, and economic opportunities					
1.2.1	Stockpile and advertise timber resources.	1. Sell timber to Akron Public School wood shop and art classes.	Engineering	2009	$0
		2. Sell timber to local woodworkers (furniture, cabinet shops, artisans).	Engineering	2008-2012	$0
		3. Offer firewood sales to the public.	Engineering	2009	$0
		4. Offer mulch sales or donate to the public.	Engineering	2009	$0
Objective 3: Become a national leader in the area of Urban Forestry.					
1.3.1	Increase the quantity of trees planted in the Street Tree Planting Program.	1. Increase the new tree planting by an additional 1,000 trees per year. This will be a combination of balled and burlaped and bare root.	Engineering	2009-20??	$250,000
1.3.2	Update the street tree inventory and maintain it for all City of Akron Departmental uses through the COA GIS system.	1. Hire 1 Engineering Associate Co-ops for the summer months.	Engineering	2009-2010	$20,000 per year
		2. Partner with Neighborhood Garden Clubs to complete the inventory (i.e.. Ward 7 Pilot Program).	Engineering	2009-2010	$2,000 per year
1.3.3	Utilize rubberized sidewalks in select locations and devise other solutions for safe pedestrian walkways.	1. Set the criteria for such an improvement and create a pilot program.	Engineering	2009	$50,000 ODNR Grant
Objective 4: Diversify the urban forest by removing Ash trees vulnerable to the Emerald Ash Borer infestation.					
1.4.1	1. Formulate a 10 year removal and planting plan to mitigate Ash trees from the urban forest.	Inventory all streets where Ash trees are know to exist and measure the size, DBH (Diameter at Breast Height)	Engineering	2008-2018	$750,000
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs/ Funding
Goal 2: Preserve and conserve agricultural lands, wet lands, and natural areas.					
Objective 1: Suppress / slow urban sprawl.					
2.1.1	Protect the limited agricultural land use within the city limits	1. Identification and designation of suitable agricultural land.	Planning	2010	$0

Objective 2: Promote local food production on vacant city property where conditions are conducive.					
2.2.1	Cultivate local nonprofits and neighborhood organizations to provide beauty or function in a neighborhood and provide a plan to maintain the designated land use.	1. Support the use of city water	Planning	2009-2012	Block Grant Money
		2. Identify vacant city lots for this purpose.	Planning	2009-2012	Block Grant Money
		3. Simplify the process for allowing permission to work the land.	Planning	2009-2012	$0
		4. Provide grant programs.	Planning	2009-2012	Block Grant Money
Objective 3: Conserve wetlands and maintain flood plains					
2.3.1	Identify and designate areas.	1. Mapping and soil sampling.	Planning	2010	$0
Objective 4: Expand urban green spaces at Locks 1,2,3					
2.4.1	Design appropriate landscape solutions	1. Install and maintain appropriate plant material	Parks Departments	2009	ESA- $134,000
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs/ Funding
Goal 3: Preserve and improve water and air quality so future generations can thrive.					
Objective 1: Conserve soil from wind and water erosion.					
3.1.1	Formulate policy to minimize and or prevent soil erosion.	1. Provide educational materials and seminars.	Summit County Soil and Water Conservation District, Planning Department	2008-2010	$0

Objective 2: Minimize the use of fertilizers and pesticides.					
3.2.1	Formalize policy and legislation to minimize to use of fertilizers and pesticides.	1. Provide viable alternatives and educational opportunities for the public and commercial sectors.	Planning, consortium of local government agencies.	2009-2012	$0
Objective 3: Promote air filtration and oxygenation.					
3.3.1	Set policy and legislation for industrial and commercial air scrubbers and vegetative plantings.	1. Provide educational materials and seminars.	Planning, Engineering	2009-2012	$5,000
Objective 4: Prepare a draft riparian corridor protection ordinance for future implementation by the City of Akron					
3.4.1	Research riparian corridor protection legislation implemented by other Ohio governmental units and prepare initial draft of ordinance for review.	1. Educate Administration and Council about the benefits of a riparian corridor protection ordinance with the assistance of the Summit/ Akron Soil and Water Conservation District.	Planning and Engineering	Fall 2009	$0
3.4.2	Determine set backs and restrictions to be included in the draft legislation.	1. Map all streams and identify conflicts with riparian corridor.	Planning and Engineering	Fall 2009	$0
3.4.3	Finalize draft riparian corridor protection ordinance for review by Administration.	1. Educate the city employees that will work with the public regarding this legislation through a seminar.	Zoning and Plans and Permits	Fall 2009	$0
		2. Develop educational and public awareness materials for the public.	Zoning and Plans and Permits	Fall 2009	$10,000

#	Strategy	Action	Responsibility	Timeframe	Estimated Costs/ Funding
Goal 4: Conserve public green space for future health, safety, and welfare for the public and community at large.					
Objective 1: Preserve public land					
4.1.1	Set policy for open space based on population density.	1. Identification and designation of present open space density.	Planning	2009-2012	Block Grant Money
Objective 2: Conserve expressway berms, slopes, and infields					
4.2.1	Set policy and define best practices.	1. Update the Highway Vegetation Management Plan	Engineering and Public Works	2009	$0
		2. Implementation the Highway Vegetation Management Plan.	Engineering and Public Works	2009-2012	$100,000 per year
		3. GIS all mowed areas of the expressway system.	Engineering	2010	$0
		4. Create wetland areas in the cloverleaf infields on the expressway system.	Engineering and Public Works	2009-2012	$25,000 per year
		5. Offer in-house training for Public Works crews that do the maintenance.	Engineering and Public Works	2009-2012	$0

Action Area: Smart Development			Owner: Mark Albrecht		Last Update: 3-4-09	
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
Goal 1: Neighborhood Revitalization						
Objective 1: Preserve existing neighborhoods						
1.1.1	Continue concentrated neighborhood rehabilitation program.	1.Identify new neighborhoods for housing rehabilitation investment	DPUD	2009		annual budget stimulus funding
1.1.2	Preserve historic neighborhoods/ districts	1. Identify historic districts including downtown	DPUD	2009-2010	Use stimulus funding	annual budget stimulus funding
		2. Establish incentives for preservation of historic structures	DPUD	2009-2010		annual budget stimulus funding
1.1.3	Remove blighting, deteriorated structures from neighborhoods	1. Continue Waiver Demolition program.	DPUD/HEALTH	On-going		annual budget stimulus funding
		2. Continue aggressive housing code enforcement.	DPUD/HEALTH	On-going		
1.1.4	Promote maintenance of existing housing	1. Initiate an Inspection-at-time-of-Sale program, concentrating on exterior conditions and internal mechanicals	DPUD/HEALTH	2010		CDBG annual funding
		2. Continue housing code enforcement activity. Use new Dollar program to promote home ownership.	DPUD/HEALTH	2010	Stimulus funding	CDBG annual funding
1.1.5	Develop necessary retail services within adequate proximity of neighborhoods.	1. Identify desired services and typical market area.	DPUD/MOED	2009-2013		CDBG annual funding

		2. Inventory neighborhoods for distribution of goods and services.	DPUD/MOED	2009-2013		
		3. Encourage new development where goods/services lacking.	DPUD/MOED	2009-2013		
1.1.6	Provide recreation, open space and civic services in proximity of all neighborhoods	1. Inventory neighborhoods for distribution of recreation, open space and civic services / develop new City park master plan	DPUD/PUBLIC SERVICE	2009-2013		
		2. Encourage new development where these are lacking	DPUD/Public Service	2009-2013		
Objective 2: Create New Housing in Neighborhoods						
1.2.1	New in-fill housing existing neighborhoods	1. Continue land assembly through Land Reutilization Program, special HUD programs, and selective acquisition.	DPUD	2009-2013		CDBG annual funding
		2.Sell land for new construction of single family houses through non-profit and for profit developers on acquired City parcels.	DPUD / UNDC	2009-2013		
		3. Encourage new construction on demolished home sites.	DPUD	2009-2013		
		4.Initiate Residential Tax Abatement Program for new housing.	DPUD	2009-2013		
1.2.2	Require new subdivisions to meet LEED-ND (Neighborhood Development) standards	1. Revise Subdivision Regulations to incorporate LEED-ND standards	DPUD	2009		
1.2.3	Develop new housing through urban renewal and redevelopment activity.	1. Select new areas for redevelopment around the central core of the City that meet LEED-ND standards.	DPUP/MOED	2009-2013		

1.2.4	Establish energy efficiency standards for housing projects that include City investment.	1. Identify guidelines for use of Energy Star products, recycled product content, construction practice. Alternative: require new developments to meet LEED certified requirements	DPUD	2009		
1.2.5	Encourage the development of smaller sized housing options to respond to changes in the household size and energy costs	1. Identify new housing design standards reflective of the changing market place.	DPUD			
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
Goal 2: Building Regulations and Standards						
Objective 1: Improve Permitting Process						
1.1.1	Incorporate US Green Building Standards into Building Code	1. Review USGB standards and analyze how they could be incorporated into the existing building code	County Building Dept. and DPUD and zoning	2009		Staff
1.1.2	Examine accelerated permitting for green projects	1. Adopt an accelerated permitting review and approval system for green projects.	County Bldg Dept./ City Zoning	2009-2010		Staff
Objective 2: Code Enhancement						
2.2.1	Examine building code for inclusion of new energy conservation standards from State and Federal govt.	1. If State of Ohio adopts new energy conservation standards, they should be incorporated into Akron Building code	Building Department	2009-2010	TBD	
2.2.2	Examine ways to reduce storm water runoff and reduce amount of hard surface areas in city	1. Determine ways to require less hard-surfaced parking, e.g., use permeable materials and evaluate use of green roofs	DPUD, Zoning and Building	2009-2010	TBD	

2.2.3	Examine alternative methods of landscaping to reduce energy consumption for new construction and redevelopment	1. Implement landscaping requirements including more trees for shade and water resistant species of scrubs and trees	PDPUD	2009-2010	TBD	
Objective 3: Educate Green Builders Stakeholder Groups						
2.3.1	Interface with local, state and national building organizations on green initiatives.	1. Contact organizations such as NAIHOP, HBA, & BOMA	County Building Dept. and DPUD zoning	2011-2014	no immediate impact	
2.3.2	Establish program of educational information for dissemination to stakeholder groups	1. Assemble LEED and other Green educational material.	Building Dept. and DPUD and zoning	2009-2010	TBD	
		2. Contact other cities outside Akron to identify relevant initiatives and information for incorporation.	County Building Dept. and DPUD zoning	2009-2010	TBD	
2.3.3	Educate local builders to new green and sustainable building standards for energy and green practices	1. Hold seminars and develop promotional literature for contractors, builders, and homeowners	County Building Dept. and DPUD zoning	2011-2014		
2.3.4	Evaluate financial incentives for undertaking energy and green initiatives	1. Research how other cities are offering financial inducements	County Building Dept. and DPUD zoning		TBD	
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
Goal 3: Land Reutilization						
Objective 1: Recapture Brownfield for reuse						
3.1.1	Recapture underutilized Brownfields within the City to create more developable land and buildings	1. Identify underutilized buildings and vacant land parcels that are impacted by contaminations.	MOED;BOE	On-going		USEPA Grant / annual CIP

3.1.2	Recapture and reuse vacant gas stations	1. Inventory and document ownership of vacant gas stations.	MOED/DPUD/BOE	On-going		annual CIP
3.1.3	Recapture landfills and commercial demolition dump sites	2. Seek federal and state assistance for purchase and remediation	MOED/DPUD/BOE	On-going		annual CIP
3.1.4	Pursue removal of vacant and deteriorated buildings	1. Survey and inspect vacant and deteriorating commercial and industrial buildings and seek legal remedies for removal	DPUD/BUILDING DEPT	On-going	Unknown	
3.1.5	Create a Brownfield inventory program	1. Develop a on-going inventory program for identifying potential brownfields	MOED AND ENGINEERING	On-going	No immediate cost	USEPA Grant
Objective 2:Promote Land banking and In-fill Development						
3.2.1	Promote use of land banking to assemble vacant land for redevelopment	1. Continue to budget annual $ for land bank purchases	MOED/DPUD/BOE	On-going	TBD	CDBG annual funding
3.2.2	Promote in-fill development	1. Identify vacant land parcels that support development	DPUD/MOED	On-going	TBD	CDBG annual funding
3.2.3	Seek select donations/acquisitions of properties either in foreclosure or sheriff's sale	1. Implement policies directed at tracking available properties	DPUD	On-going	No immediate cost	
3.2.4	Seek donations of property through the waiver demolition program	1. Implement policies to seek donation as part of waiver demolition permit.	DPUD	On-going	No immediate cost	
3.2.5	Use select urban renewal and redevelopment plans for land assemble to encourage higher densities development.	1. As needed implement urban renewal and redevelopment plans that provide vehicle for land assemble.	DPUD/MOED	On-going	No immediate cost	
Objective 3: Establish energy standards for City assists projects						
3.3.1	Establish energy efficiency standards such as LEED standards for all ED projects using City assistance	1. Require all development projects that are utilizing city financial assistance to use LEED / green building standards in their construction projects	MOED/BOE/DPUD	2009	No impact on City	

#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
Goal 4: Land Development Standards						
Objective 1: Promote efficient zoning and land use standards						
4.1.1	Permit higher densities land use in housing to encourage in-town living	1. Examine the building and zoning codes to determine where appropriate changes can be recommended to permit higher densities	Building and Zoning Divisions	2009-2010		Existing Staff
4.1.2	Permit more flexibility in creating more mixed use districts that encourage a wider diversity of land uses to accommodate in-town living lifestyles	1. Examine existing zoning and building codes to determine where changes can be made to encourage more flexibility and increased in-town development.	DPUD/building Dept	2009-2010		Existing Staff
4.1.3	Incorporate into the Land Use and Guide Plan sustainable development practices	1. As the City Wide Land Use Plan is revised incorporate sustainable development practices.	DPUD/building Dept	2009		Existing Staff
Objective 2: Improved Parking and Development Standards						
4.2.1	Adopt parking standards in neighborhood business districts to seek more shared use of parking. In Downtown encourage better use of shared parking and outlying parking through use of loop transit systems.	Evaluate options of existing parking standards as they apply to existing business districts and downtown to determine where new parking solutions and alternatives could apply.	DPUD/Building Dept	2009-2010		Existing Staff
4.2.2	Review parking lot standards for hard surfacing to reduce amount of paving materials	1, Adopt codes that permit permeable pavers and alternative to hard surfacing	Zoning/Building Dept	2009-2010		Existing Staff
4.2.3	Review the building code to evaluate parking development standards	1. Evaluate existing code requirements by use category to determine if reductions by land use classification can be achieved	Zoning/DPUD	2009		Existing Staff

#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
Goal 5: Urban Sprawl						
Objective 1: Examine JEED policies						
5.1.1	Examine JEED policies to ensure growth only within approved districts and boundaries	1. Review all outstanding petitions and requests	MOED.DPUD	On-going		Existing staff
5.1.2	Review with JEEDs opportunity for farmland preservation	1. Promote annual developments rights purchases of farmland	DPUD/BOE/MOED	On-going		Existing staff
5.1.3	Enco	?				
Objective 2: Transportation Policy						
5.2.1	Examine regional transpiration policy to discourage unnecessary urban sprawl	1. Review annually the AMATS TIP long range plan for projects encouraging sprawl	AMATS/MOED/BOE/ DPUD	On-going		Existing staff

Action Area: Smart Energy and Emissions			Brad Beckert 03/09 pd		
#	Strategy	Action	Responsibility	Timeframe	Funding level
Goal 1: Reduce the total amount of electricity and fuel used in city owned buildings and facilities, target greenhouse gas reductions from 2005 baseline year ICLEI survey					
Objective 1: Reduce Energy in City Facilities					
1.1.1	Purchase only Energy Star Certified Equipment for City use	1.Departments need to establish specifications to give to purchasing.	All Departments	2009-2010	Capital Improvement Program (CIP)
		2.Utilize Portfolio Manager/EnergyStar (after carbon footprint survey) to manage monthly energy costs by building	Building Maintenance Department (BMD)	2009-3 buildings	CIP
1.1.2	Anti-Idling	Review and/or establish policy to reduce and eliminate vehicle idling associated with city -operated vehicles. Systems for enforcement.	All Departments	2009-done in Service Department	2009-2010
1.1.3	Quantify energy use and emissions for the City's Municipal operations and the community	Complete ICLEI Baseline Emissions Inventory	Greenprint Committee	Completed-2008	Annual ICLEI dues $2,500
1.1.4	Improve efficiency of heating and cooling	Review current downtown district that has steam heat, decide what is best for the future	Service Director	5 Years	2009-on
1.1.5	Achieve LEED Certification in City facilities through retro-fits and new construction	1.Possible city building retro-fits: Municipal Building, Morley Health Center	Service Department-Engineering	Beginning in 2009, 30 days to 12 months	Economic Stimulus Assistance (ESA)
		2.Possible new construction of city buildings: New waste/recycling transfer station, build a new Fire Station #2	Service Department-Engineering	Beginning in 2009, 30 days to 12 months	Economic Stimulus Assistance (ESA)
1.1.6	Install Green roofs	1.Landmark Building	Planning & Engineering, BMD	2009-2010	ESA

		2.Cascade Plaza-use as a pilot project for a green roof	Planning & Engineering, BMD	2009	ESA
1.1.7	LED lighting replacements	1.Complete installation of LED traffic signals citywide	Public Service	2009	ESA
		2.Complete installation of LED lighting for parking decks	Public Service	2009	ESA
		3.Replace Cascade Parking Deck lights to LED	Public Service	2009	ESA
		4.Replace 93 yard lights with LED, replace 25,000 street lights with LED and 400 city owned lights	Public Service	July 2009-2010	ESA
#	Strategy	Action	Responsibility	Timeframe	Funding level
Goal 2: Research and pilot alternative sources of energy for city services					
Objective 1: Alternative sources of energy					
2.1.1	Fuel alternatives	Bio fuels for equipment	Motor Equipment	1 Year	TBD
2.1.2	Electric power alternatives	Community Centers using solar panels	BMD	3-4 Years	TBD
2.1.3	Convert truck fleet to hybrid vehicles where possible and practicable	1. Create specifications that require hybrid option when purchasing vehicles (4 trucks, 3 mowers)	The Public Works Bureau/Motor Equipment Division	Short Term	1-2 million increase to equipment replacement budget
		2. Two (2) forestry hybrid trucks, 3 2-ton trucks, and 1 side-arm mowing tractor	The Public Works Bureau/Motor Equipment Division, Parks Maintenance	2009	ESA
2.1.4	Diesel Emission Reduction	1. Class 7 & 8 truck replacement: Replace 46 Class 7 & 8 diesel powered trucks that are over 10 years old	The Public Works Bureau/Motor Equipment	2009	ESA

		2. Retrofit Class 7 & 8 existing HD truck fleet, install particulate mufflers or other technology to improve tailpipe emissions	The Public Works Bureau/Motor Equipment	2009	ESA
2.1.5	Replace city fleet with extended range electric, plug-in hybrid, battery electric B.E.V. hybrid vehicles	1. Chart the replacement priorities, timeline for replacements	The Public Works Bureau/Motor Equipment Division	2009-2013	ESA
		2. Build the infrastructure for plug-in vehicles-electrical outlets	The Public Works Bureau/Motor Equipment Division	2009-2013	ESA
2.1.6	Increase use of CNG fuel for city vehicles	1. Build a CNG fueling station to also be utilized by METRO RTA as a backup station	The Public Works Bureau/Motor Equipment Division	2009	ESA
		2. Purchase replacement equipment for 3 to 1 ton chassis that are CNG capable: sweepers, bucket trucks, flat bed, dump trucks	The Public Works Bureau/Motor Equipment Division	2009	ESA
2.1.7	Reduce the cost of resurfacing roadways and reduce greenhouse emissions and the use of fossil fuels with less trucking and fuel usage.	Utilize hot-in-place asphalt recycling	The Highway Maintenance Division	Short Term	1-2 million annually
2.1.8	Purchase a waste oil burning furnace	Burn Motor Equipment departments used motor oil to heat buildings	Public Service	2009	ESA
2.1.9	Install solar panels at Triplett Municipal Center	Provide electricity for the building	Public Service	2009	ESA
2.1.10	Bio-solids to Energy Project	Expand the pilot at Akron Compost Facility with K.B. Kurtz Brothers, to generate more electricity for facility and grid	Public Service, Water Division	2009	ESA
2.1.11	Pilot a wind turbine	Install at Muni Center on Triplett to save $288,000 annually on electrical costs at facility	Public Service Bureau	2009-2010	ESA

2.1.12	Provide a one-stop trash/recycling service for medical exemption customers	Provide one CNG split body eco-friendly packer truck for 600 medical exemption special needs trash/recycling customers	Public Works/ Sanitation/ Motor Equipment	2009	ESA
#	Strategy	Action	Responsibility	Timeframe	Funding level
Goal 3: The City of Akron Service Department will coordinate with the combined Building Department of Summit County to promote green building practices within the county					
Objective 1: Green Build					
3.1.1	Create awareness of LEED Certification and other green building principles within the community.	Establish incentive programs for green building projects completed and green processes developed in the public sector.	Smart Energy group	3-4 years	TBD
3.1.2	All new and rehab projects in the city to be LEEDS certified	Identify in the Capital Budget future projects that can meet this goal	Planning, Engineering	1-2 Years	TBD
3.1.3	Add Green Build into OBBC	Partner w/ Summit County to Lobby for new state OBBC	Team	3 Years	None
#	Strategy	Action	Responsibility	Timeframe	Funding level
Goal 4: Strive to create a sustainable culture within the city that encourages employees to conserve resources and work more energy-efficient					
Objective 1: Conservation					
4.1.1	Paperless office	Incentive programs for each department for creation and implementation of paperless ideas	City Departments	1 Year	None
4.1.2	Work schedules to conserve power and fuel	Investigate using 4-10 hour days for gasoline conservation, also investigate the work at home concept	City Departments	1 year	None

#	Strategy	Action	Responsibility	Timeframe	Funding level
Goal 5: Develop or support programs in the community that assist residents, businesses and industry to reduce their emissions and save money through energy efficiency. At the same time improve air quality by striving to meet mandated level of particulates.					
Objective 1: Emission Reduction					
5.1.1	Alternative transportation	Utilizing different modes of more efficient transportation	Public awareness campaign	2 Years	TBD
5.1.2	Minimize particulate emissions from construction activities	Establish work practice policies and education/ enforcement protocol	Building Department, Planning and Engineering	1 year	TBD
5.1.3	Support carbon fiber bi-polar plate technology for development of fuel cells to be used in regular vehicles or commercial energy generation	Support the Ohio Fuel Cell Coalition of the University of Akron and the American Engineering Group	American Engineering Group, University of Akron	2009-	ESA
5.1.4	Send Home Energy Efficiency Kits home with each 6th grader in Akron (2,000)	Fund training for charter and private school sixth grade teachers and purchase home kits for all 6th grader families in Akron for spring 2010	Keep Akron Beautiful, Akron Public Schools/ Ohio Energy Project	2010	ESA

Action Area: Smart Green Jobs			Owner: Adele Roth		DATE: 3/11/09	
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
Goal 1: Increase number of green jobs in Akron						
Objective 1: Increase jobs in green construction						
1.1.1	Increase green construction		Economic Development			
1.1.2	Training credit or grant to assist businesses in training their employees to use green technology, such as in green roofing and green certified programs	Research similar training grants in other communities	Economic Development			
1.1.3	Advertise incentive when marketing Akron	Promotional materials needed, as well as press conferences, modify websites to carry message about green technology	Economic Development & Greater Akron Chamber			
1.1.4	Make green construction a preference of builders in Akron	Promote benefits of green building, including the to-be-created grants and incentives	Economic Development & Greater Akron Chamber			
1.1.5	Encourage new building in the City to be green certified	Building code phased in for green certification	Zoning			
1.1.6	Promote incentives & current green businesses here in Akron	Promotional materials needed, as well as press conferences	Economic Development & Greater Akron Chamber			
1.1.7	Encourage businesses looking to relocate to move to newer green certified buildings	Compile list of green certified buildings in the City, as well as any that have adopted green technologies	Economic Development			

1.1.8	Encourage older buildings to become more green	Educate community on possibilities for green additions and the benefits of them	Economic Development			
1.1.9	Encourage Deconstruction business to move into Akron, or start up a Deconstruction business in Akron	Find a work force like YouthBuild or Salvation Army to reduce costs	Economic Development			
1.1.10	Encourage green remodeling of houses	Work with state to create grants or tax credits, find training dollars from Department of Labor /Jobs and Family Services, work with GBI to determine how to proceed	Planning			
1.1.11	Promote jobs on OhioMeansJobs.com		Economic Development			
Objective 2: Increase jobs in alternative fuels						
1.2.1	Seek out alternative fuels businesses to encourage a move to Akron	Attend conference on alternative fuels	Economic Development			
1.2.2	Promote incentives & current green businesses here in Akron	Promotional materials needed, as well as press conferences, modify websites to carry message about green technology	Economic Development & Greater Akron Chamber			
1.2.3	Create Incubator to attract alternative fuel businesses to Akron	Determine if state or federal grant dollars are available to assist	Akron Global Business Accelerator			
1.2.4	Work with universities and trade schools to ensure programs are in place to train workforce		Economic Development			

1.2.5	Ensure zoning and regulations are inviting to these types of companies		Zoning			
1.2.6	Bring wind energy business into Akron	Connect with the Great Lakes Wind Network	Economic Development			
1.2.7	Promote jobs on OhioMeansJobs.com		Economic Development			
Objective 3: Increase jobs in energy efficient products						
1.3.1	Seek out industries related to energy efficient products	Attend conference on energy efficient products	Economic Development			
1.3.2	Promote incentives & current green businesses here in Akron	Promotional materials needed, as well as press conferences, modify websites to carry message about green technology	Economic Development & Greater Akron Chamber			
1.3.3	Create Incubator to attract energy efficient product businesses to Akron		Akron Global Business Accelerator			
1.3.4	Work with universities and trade schools to ensure programs are in place to train workforce		Economic Development			
1.3.5	Ensure zoning and regulations are inviting to these types of companies		Zoning			
1.3.6	Promote jobs on OhioMeansJobs.com		Economic Development			

Objective 4: Increase jobs in recycling areas						
1.4.1	Seek out industries related to recycling	Attend conference on recycling businesses	Economic Development			
1.4.2	Promote incentives & current green businesses here in Akron	Promotional materials needed, as well as press conferences, modify websites to carry message about green technology	Economic Development & Greater Akron Chamber			
1.4.3	Create Incubator to attract recycling businesses to Akron		Akron Global Business Accelerator			
1.4.4	Work with universities and trade schools to ensure programs are in place to train workforce		Economic Development			
1.4.5	Ensure zoning and regulations are inviting to these types of companies		Zoning			
1.4.6	Reduce construction waste within the City	Encourage Deconstruction business to move into Akron, need warehouse space such as Habitat ReStore	Economic Development			
1.4.7	Promote jobs on OhioMeansJobs.com		Economic Development			

Action Area: Smart Materials & Solid Waste Management			Owners: Michael Pickett/Joe Asher/Pat Ashbrook			9/9/08
#	Strategy	Actions	Responsibility	Timeframe	Estimated Costs	Funding Source
Goal 1: Strive to recycle more of Akron's municipal solid waste stream.						
Objective 1: Expand the city's residential curbside recycling program by increasing weekly participation and the volume of recyclables collected.						
1.1.1	Continue the city's commitment to recycling education and promotion of program.	1. Assign a Recycling Coordinator in Public Works to make public appearances, track success	Public Works	2009-2010		
		2. Conduct a recycling education campaign using Sanitation trucks and printed media	Public Works/Mayors Office/KAB	2009		
1.1.2	Increase the household participation rate to 75%	1. Provide incentives for Akron residents to recycling above and beyond cost savings	Public Works	2013		
1.1.3	Increase the volume of recyclables collected curbside by 50 %	1. Collect all recyclables curbside, polymer numbers 1 through 7, to make it easier for the consumer	Public Works	Beginning in Fall 2008		
		1. Study the implementation of collecting all organic waste curbside.	Public Works	2009		
Objective 2: Manage and measure a workplace recycling program in city of Akron office buildings.						
1.2.1	Conduct a waste audit of city office buildings.	1. Choose representative city facilities	SASWMA/Public Works/ BMD	2009		
1.2.2	Determine type and quantity of collection receptacles	1. Research funding sources	SASWMA/KAB	2009		
1.2.3	Assign responsibility for collection and measurement of selected commodities to be recycled internally	1. Design a tracking system of measurement by building and collection logistics	SASWMA/Public Works/ BMD	2009		
Objective 3: Work towards a zero landfill policy of waste generated through the Public Works Department						

1.3.1	Heat the Fleet Maintenance Garage by burning used oil derived from the servicing of city equipment	1. Maintain oil burners that operate used oils.	Motor Equipment Division	2009-2010		
1.3.2	Remove bulk leaves throughout the City; and utilize in the production of mulch and topsoil	1. Push up, sweep and pickup leaves, sell leaves to contractor and use in mixing with wood waste for producing our own mulch.	Street Cleaning Division and Private Contractor	2009-2010		
1.3.3	Grind wood waste and pallets to produce mulch for use throughout Public Works operations	1. Hire contractor to grind wood waste and produce mulch.	Parks Maintenance Division	2009-2010		
1.3.4	Recap truck tires	1. Hire contractor to recap truck tires whenever possible	Motor Equipment Division	2009-2010		
1.3.5	Recycle hydraulic oils by filtering and reusing	1. Purchase the equipment	Motor Equipment Division	2009-2010		
1.3.6	Crush all oil filters and collect 95% residual oil for recycling	1. Purchase oil crushes at each location	Motor Equipment Division	2009-2010		
1.3.7	Recycle scrap metal and tires	1. Install recycle storage bins to contain materials	Motor Equipment Division	2009-2010		
1.3.8	Perform the recycling of asphalt roadways	1. Purchase recycling equipment, and hire personnel to operate.	Highway Maintenance Division	2011-2013	2.2 million and staff	
1.3.9	Experiment and test the use of increased RAP (Reclaimed Asphalt Product) in our resurfacing program.	1. Write resurfacing specifications to require higher RAP percentages	Highway Maintenance Division	2009-2010	Savings of $350,000 annually	
Objective 4: Provide expanded opportunities for the citizens of Akron to recycle.						
1.4.1	Investigate offering a recycling drop-off facility in the City of Akron for residents of multi-family housing units and small businesses	1. Meet with SASWMA to determine need, logistics and funding	Public Works/SASWMA/ KAB/DAP	2009		
1.4.2	Provide multiple commodity recycling collection and disposal at all city events.	1. Seasonal collection receptacles for multiple commodities placed at Lock 3 and Lock 3 and Lock 4 parks	Public Works/DAP/ Recreation	2009		

		2. Study the placement of recycling receptacles at the BMX/ Skateboard Park	Public Works/KAB	2009		
		3. Study the use of temporary, re-useable recycling collection receptacles for use at Recreation Department events (Arts Expo, Ballets, concerts).	Recreation/Public Works	2009		
		4. Work with Soapbox Derby Administration to provide a system of recycling at this annual national event	Public Works/Soap Box Derby	2009		
Objective 5: Work with large institutions in the community to increase or improve system-wide recycling programs.						
1.5.1	Work with the Akron Public Schools (APS) to implement a system-wide recycling program for the classrooms and offices.	1. Begin meeting collaboratively to come up with a cost avoidance plan	KAB/SASWMA/APS	Fall 2008		
1.5.2	Continue partnering with Downtown Akron Partnership (DAP) to offer recycling programs for members of the Special Improvement District.	1. Finish the pilot project Phase 1 with restaurant cardboard recycling, move into Phase 2 with SID office buildings	SASWMA/DAP/KAB	2008-2009	$5,000 + Phase 2	
1.5.3	Monitor the success of the recycling program at Canal Park Stadium for possible expansion.	1. Examine statistics from 2008 season, make adjustments	SASWMA/AkronAeros/ DAP/KAB	2008-2009		
#	Strategy	Actions	Responsibility	Timeframe	Estimated Costs	Funding Source
Goal 2: Develop sustainable procurement practices, policies and procedures						
Objective 1: Continue to identify green, biodegradable cleaning and custodial products for use by Building Maintenance Department (BMD) that effectively handle cleaning needs			Purchasing requests sustainable product alternatives	2009-2010		
Objective 2: Continue to identify the least hazardous products for use by the Motor Equipment Division			Purchasing requests sustainable product alternatives	2009-2010		

Objective 3: Concentrate on educating the city department heads about green alternatives when requesting purchases			Purchasing/ Finance	2009-2010		
2..3.1	Sponsor a City of Akron Earth Day Procurement Fair of possible new products for Department Heads		Purchasing	2009-2010		
Objective 4: Examine Purchasing Department specifications to include earth-friendly options in the bid process.			Purchasing/Finance	2009-2010		
#	Strategy	Actions	Responsibility	Timeframe	Estimated Costs	Funding Source
GOAL 3: Limit non-point source pollution from Akron's roads and highways.						
Objective 1: Reduce harmful applications of road salt						
3.1.1	Develop and construct a brine making station that will produce various concoctions of salt brine, geo melt, and calcium chloride	1. Write specification for equipment and installation of systems	Public Works Engineering and the Highway Maintenance Divisions	2009-2010	$100,000	
3.1.2	Reduce the use of road salt to de-ice roadways by 30%	1. Install wetting systems in all snow & ice fighting vehicles	The Public Works Bureau (highways, parks and street cleaning_	2014-2018	as needed and budgeted	
3.1.3	Utilize alternate products that are more eco-friendly to treat roadways during icing events.	1. Purchase products such as geo-melt, calcium chloride and clear lane	The Public Works Bureau (highways, parks and street cleaning	2009-2010	as needed and budgeted	

Action Area: Smart Transit			Jerry Egan		
			2/5/09		
#	Strategy	Action	Responsibility	Time Frame	Funding
Goal 1: Manage the city transportation fleet in a manner that limits energy usage					
Objective 1: Improve fuel efficiency among vehicle types					
1.1.1	Establish target mileage goals for future purchases of all varieties of City vehicles	Replace aging and inefficient vehicles on a regular basis with vehicles meeting mpg standards	Motor Equipment	2008-2013	
		Educate Departments on vehicle and mpg ratings for fleet purchases	Motor Equipment	2008-2013	
		Consider alternative vehicle types for various work functions	Motor Equipment	2008-2013	
		Evaluate hybrid technology for certain work applications	Motor Equipment	2008-2013	
		Utilize hybrid/hydrogen fuel vehicles when products more successfully developed	Motor Equipment	2015-2025	
Objective 2: Expand use of alternative fuels as appropriate					
1.2.1	Evaluate alternative fuel technologies for cost, service, availability and durability	Improve understanding of alternative fuel choices for service, availability and performance	Motor Equipment	2008-2013	
		Test alternative fuel or additives on pilot trial basis	Motor Equipment	2010-2015	
		Communicate with public/private sector on experience with alternative fuels	Motor Equipment	2008-2013	
Objective 3: Establish fleet operating procedures that reduce energy consumption					
1.3.1	Evaluate distribution, assignment and operation of vehicles	Establish and enforce idling policies and practices that limit fuel usage. Provide education on merits.	Public Service, Public Safety, All Departments	2008-2010	

		Encourage ride-sharing to work in City vehicles	Public Service	2008-2010	
		Evaluate practices relative to “in field” visits with City fleet.	Public Service	2008-2010	
		Establish operational energy cost limits for departmental fleet usage.	Public Service	2008-2010	
		Set fleet reduction goals that include use of lease vehicles and equipment sharing	Public Service	2008-2010	
		Educate and encourage tire pressure maintenance.	Motor Equipment	2009-2011	
		Utilize green cleaning products and solvents	Motor Equipment	2009-2011	
Objective 4: Reduce employee vehicle energy use					
1.4.1	Expand telecommuting and use of non-auto trips to work	Permit periodic work-at-home options.	All Departments	2009-2011	
		Utilize web-based conferencing and training options to limit travel	All Departments	2009-2011	
		Develop incentives for use of public transit.	All Departments	2009-2011	
		Encourage bicycle commutes to work.	All Departments	2009-2011	
#	Strategy	Action	Responsibility	Time Frame	Funding
Goal 2: Maintain an efficient transportation network					
Objective 1: Assure that City right-of-way is in good condition					
2.1.1	Allocate sufficient resources for bridge, street and sidewalk repair	Establish annual minimum capital budget allocation.	Public Works, Engineering, Capital Planning	Annual	
		Utilize 311 data to identify trouble spots	Public Works, Engineering, Capital Planning	Annual	
		Evaluate work procedures to improve efficiency and minimize energy use.	Public Works, Engineering, Capital Planning	Annual	

		Evaluate materials and processes used to extend useful life of transportation infrastructure.	Public Works, Engineering, Capital Planning	Annual	
Objective 2: Support multi-modal transportation options throughout the City					
2.2.1	Establish a complete streets policy in the evaluation of future ROW projects	Complete the Ohio & Erie Canal Towpath through the City	Engineering, METRO, DPUD	2008-2010	
		Complete METRO transfer station on Broadway	Engineering, METRO, DPUD	2008-2010	
		Include Pedestrian/Bicycle/Disabled needs review in all roadway projects Scope of Service	Engineering, METRO, DPUD	2008-2010	
		Meet regularly with METRO on routing and passenger use issues	Engineering, METRO, DPUD	2008-2010	
Objective 3: Develop a Community Bicycle Plan					
2.3.1	Engage a broad section of the community in the development of a comprehensive program for biking in the community	Create inter-departmental group to develop plan	Planning, Engineering, Recreation, Police	2008-2009	
		Establish Community Advisory Group	Planning, Engineering, Recreation, Police	2008-2009	
		Allocate resources to implement plan elements	Planning, Engineering, Recreation, Police	2008-2009	
		Work with the University of Akron/UPA on their Bicycle Program	Planning, Engineering, Recreation, Police	2008-2009	
Objective 4: Expand access to transport vehicles					
2.4.1	Pursue development or expansion of transport vehicles	Increase participation in AMATS Rideshare program by City employees	AMATS, Planning	2008-2010	
		Evaluate establishment of a Car Share program in the City	Public Service, Planning	2008-2010	
		Evaluate establishment of a Bike Share program in the City	Planning	2008-2010	

Objective 5: Use energy efficient traffic control devices					
2.5.1	Replace aging traffic control mechanisms with energy efficient components	Use LED devices in new traffic signals; retro-fit existing signals with LED lenses	Traffic Engineering, Engineering	2008-2013	$250,000
		Utilize roundabouts in place of signals where appropriate.	Traffic Engineering, Engineering	One per year	$700,000 each
		Evaluate new street light equipment for performance and efficiency.	Traffic Engineering, Engineering	2009-2014	
Objective 6: Encourage street connectivity					
2.6.1	Recognize the value of multiple access routes to residential and commercial areas	Limit creation of new cul de sacs	DPUD, Engineering	2009-2014	
		Restrict vacation of existing streets	DPUD, Engineering	2009-2014	
#	Strategy	Action	Responsibility	Time Frame	Funding
Goal 3: Align transportation plans and land use decisions to limit travel miles					
Objective 1: Encourage compact, mixed use development along arterial streets					
3.1.1	Create mixed use, higher density development in areas that are walkable and have good multi-modal transportation access.	Provide Zoning regulations that permit mixed-use development to occur.	DPUD, Engineering	2009-2014	
		Designate areas of the City most appropriate for this style of development	DPUD, Engineering	2009-2014	
		Follow Context Sensitive Solutions when improving major streets with mixed-use development.	DPUD, Engineering	2009-2014	
Objective 2: Support distribution of necessary goods and services within reasonable access by residents					
3.2.1	Determine a necessary set of uses and services within a neighborhood market area	Evaluate current distribution of goods and services	DPUD, Economic Development	2009-2014	
		Identify location gaps in goods and services	DPUD, Economic Development	2009-2014	
		Engage property owners in neighborhoods and solicit businesses to fill gaps	DPUD, Economic Development	2009-2014	

Objective 3: Emphasize road maintenance over road extension					
3.3.1	Support county, regional and state initiatives that promote maintenance of existing streets, highways and interchanges	Support increases in State Issue 2 funding	Administration	2009-2014	
		Encourage a substantial majority of AMATS - regulated funding is directed towards existing street systems	Administration	2009-2014	
Objective 4: Adjust off-street parking development standards					
3.4.1	By reducing development costs related to parking, higher levels of revenue-producing development can occur.	Establish maximum parking requirements that limit the amount of land needed for off-street parking	DPUD, Public Service	2009-2014	
		Develop more public and shared parking opportunities	DPUD, Public Service	2009-2014	
		Expand CBD area with no parking requirement.	DPUD	2009-2014	
Objective 5: Adjust on-street and off-street public parking fees to reflect market conditions					
3.5.1	Land for parking is valuable and should be priced to reflect that value and increase turnover of use. Inexpensive cost for parking encourages use of automobiles	Increase meter fees in high use areas.	Traffic Engineering, Public Service	2009-2014	
		Increase meter enforcement activity.	Traffic Engineering	2009-2014	
		Offer reduced-cost deck fees after 6 pm but eliminate free parking.	Public Service	2009-2014	
Objective 6: Support access to buildings for all users regardless of physical abilities					
3.6.1	Simple entry and internal design standards can allow all users to comfortably access buildings	Establish “Visitability” as a requirement for all new residential and commercial buildings	Building Inspection, DPUD	2009-2010	

Action Area: Smart Water and Wastewater Management			Owner: Mike McGlinchy			
Goal 1: Water Conservation						
Objective 1: Public Information						
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
1.1.1	Send information to Public	1. Water bill insert to check plumbing fixtures	APUB	2009-2012 - 1X per year	$10,000	
		2. “Avoid water waste” tips in City calendar	APUB	2009-2012 - 1X per year	$1,000	
1.1.2	Information Displays	1. Traveling display for public meetings	APUB	2009-2012	$1,000	
		2. Proactive Drinking Water Week display in APUB Business Office Lobby	APUB	2009-2012	$1,000	
1.1.3	E-information	1. Update APUB website with Smart Water Use information	APUB	2009-2012	$1,000	
1.1.4	School presentations	1. City employees make school presentations on Smart Water Use w/ handouts	APUB/KAB	2009-2012	$10,000	
1.1.5	Public meetings	1. City employees make presentations at ward meetings and to community groups on Smart Water Use w/handouts	APUB/KAB	2009-2012	$10,000	
Objective 2: Public Participation						
1.2.1	Rain Barrel Clinic	1. Provide instructional clinics for constructing rain barrels	APUB/KAB/AEB/SSWCD	2009-2012- 2 X per year	$10,000	ESA/Fee/Grant
1.2.2	Home Water Audit	2. Post instructions on website, provide home test kits for leaking toilets	APUB	2009-2012	$5,000	

Objective 3: Capital Investment						
1.3.1	Retrofit City Facilities	1. Retrofit City Hall restroom with water conserving fixtures	Building Maintenance/ AEB	2009-2012	$40,000	ESA
Goal 2: Water Quality Improvements						
Objective 1: Public Information						
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
2.1.1	Send information to Public	1. Water bill insert for Household Hazardous Waste Collection Center	APUB/SASWA	2009-2012 - 1 X per year	$10,000	
2.1.2	Information Displays	1. Storm Water Pollution Prevention posters at all trailheads	APUB/ KAB/ SSWCD/ MetroParks	2009-2012	$2,000	
2.1.3	E-information	1. Provide Storm Water and Nonpoint Source Pollution Prevention information on Akron website	APUB/AEB/IT	2009-2012	$500	
		2. E-billing for water/sewer/curb service	APUB	2008-2012 (ongoing)	$0	Online signup
		3. Update APUB website	APUB	2008-2012 (ongoing)	$1,000	
2.1.4	School presentations	1. City employees make school presentations on Storm Water and Nonpoint Source Pollution Prevention w/handouts	APUB/KAB/SSWCD	2009-2012	$10,000	
2.1.5	Public meetings	1. City employees make presentations at ward meetings and to community groups on Storm Water and Nonpoint Source Pollution Prevention w/handouts	APUB/KAB/SSWCD	2009-2012	$10,000	
2.1.6	Storm Water Pollution Prevention clinics	1. Hold instructional clinics for developers/contractors	APUB/AEB/SSWCD	2009-2012 - 1X per year	$5,000	
Objective 2: Public Participation						
2.2.1	Pharmaceuticals Collection	1. Host Pharmaceuticals Collection events	SASWMA / Health/ Summit County/APUB/ OEPA	2010-1012 - 1 X per year	$30,000	

2.2.2	Door Hangers	1. Storm Water Pollution Prevention door hangers	APUB/KAB/SSWCD	100,000+ households and businesses - 25,000 per year for 4 years 2009-2012	$10,000	
2.2.3	Rain Barrel Clinics	1. Provide instructional clinics for constructing rain barrels	APUB/KAB/SSWCD/AEB	2009-2012 - 2 X per year	$10,000	ESA/Fee/Grant
2.2.4	Rain Garden Clinics	1. Provide instructional clinics for constructing rain gardens	APUB/KAB/SSWCD/AEB	2009-2012 - 1 X per year	$10,000	ESA/Fee/Grant
2.2.5	Waterway Cleanup Days	Provide opportunities to cleanup waterways	APUD/SSWCD/ MetroParks	2009-2012-1x per year	$5,000	Grant
2.2.6	Lawn Care Clinic	1. Hold instructional clinics on “greener” lawn care	APUB/KAB/SSWCD	2009-2012 - 1X per year	$5,000	Grants
Objective 3: Capital Investment						
2.3.1	New/Retro Storm Inlet Cast	1. Incorporate “Do Not Dump Waste (or “Don’t Dump) - Drains To Waterways” on inlet castings	APUB/AEB	2008-2012 (ongoing)	$0	Standard drawing complete-manufacturers supplying
2.3.2	Reduce stormwater runoff from City facilities	1. Incorporate “Green Infrastructure” practices - porous pavement, grass pavers, etc.	APUB/PW/AEB	2009-2012	$50,000	ESA
2.3.3	Reduce stormwater pollution on construction sites	1. Stricter City ordinances and plan standards	APUB/AEB/SSWCD	2008	COMPLETE	
Goal 3: Alternative Energy Production/Use						
Objective 1: Public Information						
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
3.1.1	Send information to Public	1. Provide information in water bill inserts, Akron City magazine	APUB/AEB/Mayor	2009-2012 - 1X per year	$10,000	
3.1.2	E-information	1. Provide alternative energy production information on Akron website	APUB/IT	2009-2012	$1,000	

Objective 2: Public Participation						
3.2.1	Tours	1. Offer tour of facilities to general public	APUB	2009-2012	$1,000	
3.2.2	Contests	To be Determined	APUD/KAB	2009-2012	$2,500	
3.2.3	Public meetings	1. City employees make presentations at ward meetings and to community groups on Alternative Energy w/ handouts	APUB/KAB	2009-2012	$10,000	
Objective 3: Capital Investment						
3.3.1	Convert Equip. to Alt Energy	1. Expand anaerobic sludge digestion to process all sludge and generate electricity from biogas	APUB/AEB	2010-2012	$20,000,000	ESA
3.3.2	New Equip. use Alt. Energy/fuel	Purchase replacement vehicles, equipment and process equipment that uses alternative energy sources and/or alternative fuels	APUB/AEB/PW	2010-2012	$5,000,000	ESA
Objective 4: Alternative Energy Use						
3.4.1	Use Landfill Gas	1. Purchase/install dual fuel boilers that use landfill gas	APUB/PW/AEB	2009-2012	$50,000	ESA
		2. Retrofit existing boilers with dual fuel burners that use landfill gas	APUB/PW/AEB	2009-2012	$20,000	ESA
Goal 4: Energy Conservation						
Objective 1: Public Information						
#	Strategy	Action	Responsibility	Timeframe	Estimated Costs	Funding Source
4.1.1	Send information to Public	1. Provide information in water bill inserts, Akron City magazine	APUB/AEB/Mayor	2009-2012 - 1X per year	$10,000	
4.1.2	E-information	2. Provide energy conservation tips and information on Akron website	AEB/IT	2009-2012	$1,000	

Objective 2: Capital Investment						
4.2.1	Energy Audit of Facilities	1. Conduct energy audit on water and wastewater facilities	APUB	2009-2012	$200,000	ESA
4.2.2	Retrofit w/energy effic devices	2. Provide energy efficient motors, motor starters, power factor correction as identified by audit	APUB/AEB	2009-2012	$1,000,000	ESA
4.2.3	New energy efficient devices	Provide energy efficient heating systems, lighting, windows, doors	APUB/AEB	2009-2012	$1,000,000	ESA

Appendix 4 – Federal & State Policies & Actions

Federal Policy, Actions, and Initiatives

Policy/Action		Summary
National Goal to Reduce Greenhouse Gas Emissions Intensity **The Akron Connection** Greenprint can support the nation's goals through local action.		The Federal government implemented this initiative in 2002 through voluntary and incentive-based programs. The implementation is focused on technology improvements and dissemination, energy efficiency, voluntary industry programs, and shifts to fuels.
Energy Independence and Security Act of 2007 **The Akron Connection** This act can provide guidance and possible funding opportunities for Greenprint initiatives.	Title I: Energy Security through Improved Vehicle Fuel Economy	Increased Corporate Average Fuel Economy (CAFE)
	Title II: Energy Security through Increased Production of Biofuels	Renewable Fuel Standard (RFS) - The RFS requires minimum annual levels of renewable fuel in U.S. transportation fuel.
	Title III: Energy Savings through Improved Standards for Appliances and Lighting	Appliance Energy Efficiency - This sets, by statute, new efficiency standards for external power supplies, residential clothes washers, dishwashers, dehumidifiers, refrigerators, refrigerator-freezers, freezers, electric motors, and residential boilers.
	Title IV: Energy Savings in Buildings and Industry	High-Performance Commercial Buildings - This encourages the development of more energy-efficient "green" commercial buildings.
		High-Performance Federal Buildings - Section 432 directs that federal energy managers conduct a comprehensive energy and water evaluation for each facility at least once every four years. Section 434 requires that each federal agency ensure that major replacements of installed equipment (such as heating and cooling systems), or renovation or expansion of existing space, employ the most energy efficient designs, systems, equipment, and controls that are life-cycle cost effective. Section 435 prohibits federal agencies from leasing buildings that have not earned an EPA Energy Star label. Section 438 requires federal facility development projects with a footprint exceeding 5,000 square feet to use site planning, design, construction, and maintenance strategies to control storm water runoff.
		Healthy High-Performance Schools - This creates a grant program for Healthy High-Performance Schools. The aim is to encourage states, local governments, and school systems to build green schools.
		Institutional Entities - to support energy efficiency and energy sustainability projects at public institutions.
		Public and Assisted Housing - Section 481 directs the Department of Housing and Urban Development (HUD) to update energy efficiency standards for all public and assisted housing.
		General Provisions - Section 491 calls for a total of four projects are to be undertaken at different universities over the five-year period. Section 493 requires EPA to create a program of competitive grants to local governments for green building demonstration projects.
	Title V: Energy Savings in Government and Public Institutions	Energy Efficiency and Conservation Block Grants (EECBG) - Section 542 directs DOE to establish an energy efficiency and conservation block grant program to help reduce energy use and emissions at the local and regional level. In June 2008, the House Appropriations Committee appropriated $295 million for the program in FY 2009. However, in July 2008, the Senate Appropriations Committee decided not to include any funding for the EECBG program in their FY 2009 appropriations bill for the U.S. Department of Energy. Later in 2008 or in early 2009, the House and Senate will decide upon a final funding level for the EECBG Program.

Goals/Requirements	Funding Issues
The Federal government has set a goal that would reduce the greenhouse gas emissions intensity by 18% over the 10-year period from 2002 to 2012. Greenhouse gas intensity describes the ratio of greenhouse gas emissions to Gross Domestic Product (GDP). The federal goal is to reduce the emissions intensity from the 2002 level of 183 metric tons per GDP to 151 metric tons per GDP in 2012. This will save approximately 500 million metric tons greenhouse gas emission over the 10-year period.	The plan includes $3 billion in federal spending for climate change-related technology research, development, demonstration, and deployment that are needed to both reduce greenhouse gas emissions and power economic growth.
The act sets a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020.	
The act sets a modified standard that starts at 9.0 billion gallons in 2008 and rises to 36 billion gallons by 2022. Starting in 2016, all of the increase in the RFS target must be met with advanced biofuels, defined as cellulosic ethanol and other biofuels derived from feedstock other than corn starch – with explicit carve-outs for cellulosic biofuels and biomass-based diesel.	Biofuels Infrastructure: A funding authorization of $25 million is established to provide grants for biofuels research, development, and demonstration (RD&D) and commercial applications in states that have low rates of ethanol production. A university-based program is authorized to provide grants of up to $2 million for R&D on renewable energy technologies. Priority is given to universities in low-income and rural communities with proximity to trees dying of disease or insect infestation.
Federal agencies are directed to purchase devices that limit standby power use.	
A national goal is set to achieve zero-net-energy use for new commercial buildings built after 2025. A further goal is to retrofit all pre-2025 buildings to zero-net-energy use by 2050.	
This requires that total energy use in federal buildings, relative to the 2005 level, be reduced 30% by 2015. For new federal buildings and major renovations, Section 433 requires that fossil-fuel energy use – relative to the 2003 level – be reduced 55% by 2010 and be eliminated (100% reduction) by 2030.	
	EPA, in consultation with the Department of Education, is allowed to provide grants to state agencies to provide technical assistance and help with the development of state plans for school building design.
	Section 471 creates a program of grants and loans.
	Universities - Section 491 is supported by an additional $10 million funding authorization. Local Government - EPA to create grants for green building project.
Grant recipients are required to submit to the Secretary of Energy one year after receiving a grant, a proposed energy efficiency and conservation strategy, which includes the goals and proposed plan for the grant. In addition, there will be reporting requirements starting two years after funds are provided and annually after that on the status and implementation of the strategy and any assessments of the energy efficiency gains.	Under the program, Congress may appropriate up to $2 billion per year for grants. Of that amount, 68 percent would flow to cities and counties while 28 percent would go to the states. Cities over 35,000 in population would apply directly to the U.S. Department of Energy for grants; a city under 35,000 would apply to the state for funding under the program (each state must pass through to local governments at least 60 percent of its share of funding).

	Title X: Green Jobs	To help address job shortages that are impairing growth in green industries, such as energy efficient buildings and construction, renewable electric power, energy efficient vehicles, and biofuels development.
	Title XI: Energy Transportation and Infrastructure	Highways - Section 1133 expresses that, in constructing new roadways or rehabilitating existing facilities, state and local governments should employ policies designed to accommodate all users, including motorists, pedestrians, cyclists, transit riders, and people of all ages and abilities.
	Title XII: Small Business Energy Programs	Loans, grants, and debentures are established to help small businesses develop, invest in, and purchase energy efficient buildings, fixtures, equipment, and technology.
The Higher Education Sustainability Act (HESA) **The Akron Connection** HESA can provide opportunity for Akron to collaborate with local colleges and universities in support of Greenprint.		This act is a part of the Higher Education Opportunity Act of 2008 (H.R. 4137) that was signed into law on August 14, 2008. Endorsed by over 220 colleges and universities, higher education associations, NGOs and corporations, this grant program will provide the catalyst for colleges and universities to develop and implement more programs and practices around the principles of sustainability. The bill also directs the Department of Education to convene a national summit of higher education sustainability experts, federal agency staff, and business leaders to identify best practices and opportunities for collaboration in sustainability.
United States Environmental Protection Agency	Local Climate Demonstration Grants	If fully funded, these demonstration grants can provide local governments with limited funding to test and implement innovative environmental actions such as stormwater management, environmental education, and effective integrated solid waste management.
The Akron Connection The EPA has possible resources for City project funding opportunities.	The Great Lakes	Grant money is available for projects specific to the Great Lakes. The USEPA's Great Lakes National Program Office (GLNPO), located in Chicago, Illinois, brings together Federal, state, tribal, local, and industry partners in an integrated, ecosystem approach to protect, maintain, and restore the chemical, biological, and physical integrity of the Great Lakes.
Department of Energy's Clean Cities Program **The Akron Connection** Clean Cities provides partnership opportunities to promote clean and alternative energy usage and seek coalition funding for partnership projects.		Sponsored by the U.S. Department of Energy's (DOE) Vehicle Technologies Program (VTP), Clean Cities contributes to the energy, environmental, and economic security of the United States by supporting local decisions to reduce our dependence on imported petroleum. The partnership helps all parties identify mutual interests and meet the objectives of reducing the use of imported oil, developing regional economic opportunities, and improving air quality. A Clean Cities coalition can provide a forum for members to leverage their resources, develop joint projects, collaborate on public policy issues, and promote petroleum reduction and clean air technologies.
US Department of Agriculture Forest Service: Urban and Community Forestry Cooperative Program **The Akron Connection** The Urban and Community Forestry Cooperative Program can provide an opportunity for Akron to seek funding that will promote the incorporation of trees and green spaces throughout the city and will support the vision of the USDA Forest Service.		The US Forest Service and State Forestry Agencies, in partnership with national and local organizations, provide a comprehensive approach to the stewardship of urban trees and forest resources. The program provides technical and financial assistance to help improve the livability of cities and communities through managing urban forest resources to promote a healthy ecosystem.

	This title authorizes up to $125 million in funding to establish national and state job training programs, administered by the Department of Labor.
	Section 1201 empowers the Small Business Administration (SBA) to make “express” loans for certain energy efficiency and renewable energy projects. Section 1202 creates a two-year pilot loan program for purchasing energy efficient technologies under Section 7(a) of the Small Business Act at half the cost that would have otherwise been required.
	It authorizes a $50 million grant program at the Department of Education for higher education institutions.
	USEPA grants will vary based on annual budgetary funding.
	The USEPA’s Great Lakes National Program Office has a staff of 46 and a budget of almost $15 million.
The program, in cooperation with State foresters or equivalent State officials, shall assist in identifying sources of plant materials and may procure or otherwise obtain such plant materials from public or private sources and may make such plant materials available to urban areas and communities for the purpose of reforesting open spaces, replacing dead and dying urban trees, promoting energy conservation, and providing other environmental benefits through expanding tree cover in urban areas and communities.	The program will provide assistance through competitive matching grants awarded to local units of government. Funds or other support shall be provided under the program to eligible communities and organizations, on a competitive basis, for urban and community forestry projects. The Federal share of support for a project provided under this subsection may not exceed 50 percent of the support for that project and shall be provided on a matching basis. The non-Federal share of such support may be in the form of cash, services, or in-kind contributions.

State of Ohio Policy, Actions , and initiatives

Policy/Action	Summary
House Bill No. 300 (1994) **The Akron Connection** This house bill can provide possible funding for some of the Greenprint initiatives.	This house bill is legislation for the purchase, installation, and financing of energy conservation improvements by way of mechanical systems replacement, energy system installation, lighting retrofit, and plumbing upgrades. It is meant for local governments.
House Bill No. 295 (2008) **The Akron Connection** This house bill can provide possible funding for some of the Greenprint initiatives.	Amends House Bill No. 300. Modifies the definition of "energy conservation measure" - It adds as an energy conservation measure, the acquiring, constructing, furnishing, equipping, improving the site of, and otherwise improving a central utility plant to provide heating and cooling services to a building or buildings together with distribution piping and ancillary distribution controls, equipment, and related facilities.
Ohio Department of Development Strategic Plan **The Akron Connection** The City of Akron can look to this plan for guidance, inspiration, and opportunities for developing and implementing the Greenprint.	This plan is designed to increase the global competitiveness of Ohio's employers. This plan lays a foundation for Ohio's future economic prosperity by growing the income of Ohioans, creating and retaining jobs for Ohioans, and expanding productivity through innovation. The plan targets advanced energy and environmental technologies as an industry to strengthen. The plan sets up "Ohio Green Places" which promotes and develops programs and policies with the goal to make Ohio the leading state for sustainable green development.

Goals/Requirements	Funding Issues
	Authorizes Use of Energy/Operational Savings from Existing Budgets. Allows Financing of Projects (10 Years but this is changed in House Bill No. 295). Exempts Financing from General Indebtedness.
	Changes in the financing terms: The bill requires that the amount spent by local government on energy conservation measures be unlikely to exceed the amount saved in energy, operating, maintenance, and avoided capital costs over the measures' average system life. It also allows financing of projects for the lesser of 30 years or the measure's average system life.
	Possible funding available to the City through: Clean Ohio Revitalization Fund, Job Ready Sites Program, Industrial Site Improvement Fund, Ohio Historic Preservation Tax Credit Program, Local Government Services and Regional Collaboration Grants.

Appendix 5 – U.S. Conference of Mayors

Energy and Environmental Block Grant (EEBG) Program

Background

The United States, to remain competitive and economically viable, needs a comprehensive energy strategy that incorporates energy efficiency and alternative energy sources. In addition, the United States, while representing less than 5 percent of the world's population, releases a projected 25 percent of all greenhouse gases emitted worldwide, the major contributor of global warming. Local governments are particularly well-positioned to develop, implement and promote an energy efficiency and greenhouse gas reduction strategy at the community level.

The Energy and Environmental Block Grant program assists local and state governments to develop and implement a comprehensive energy efficiency strategy which emphasizes a bottom-up, community-based approach in helping the nation meet its energy and climate protection goals.

Program Elements of the EEBG Proposal –

- Eligible Communities – 70 percent of all funds would be directed to cities with populations of 50,000 or more and Counties of 200,000 or more based on a formula, set by the Secretary of Energy considering residential and daytime population. States would receive the remaining 30 percent of the funds and would be required to pass through at least 70 percent to provide subgrants to units of local governments that are not eligible under the population formula.
- Planning Grants – The DOE Secretary can disburse $200,000 or 20 percent of the grant (whichever is greater) to the local and state government to assist with the development of an Energy Efficiency and Climate Protection Strategy. The local and state government must submit and receive approval by the Secretary of Energy of this strategy which establishes goals for increased energy efficiency and reduction of greenhouse gas emissions in that jurisdiction.
- Eligible Activities of the Energy Efficiency and Climate Protection Strategy –
  - Determination of 1990 and present levels of greenhouse gas emissions;
  - Conducting energy audits and weatherization programs;
  - Creation of financial incentive programs for energy efficiency retrofits;
  - Development and implementation of building and home energy conservation programs;
  - Development and implementation of transportation fuel conservation programs;
  - Development and implementation of alternative fuel technologies and infrastructure that result in significant greenhouse gas emission reductions; and
  - Development and implementation of building codes and inspection services for public, commercial, industrial, and residential buildings to promote energy efficiency;
  - Development and promotion of land use guidelines that result in energy efficiency and greenhouse gas emission reductions.
- Annual Reporting Requirements – The local and state government will submit annual reports to the DOE Secretary regarding the status of the Strategy's development, implementation, and if possible, a best available assessment of the energy efficiency gains and greenhouse gas reductions realized.
- Appropriation Levels - $4 billion in FY 2008 – 2009; $5 billion in FY 2010 – 2011; and $6 billion in FY 2012.

Benefits of EEBG –

- ***Significant Energy Savings in the New Building Sector***: The updating and revision of building codes within cities and counties will result in significant increases in energy efficiency. For example, buildings and their construction account for nearly half of all the greenhouse gas emissions and energy consumed in this country each year, according to the American Institute of Architects. By 2031, according to a Global Insight, Inc. 25-year forecast, the nation will build 39.3 million new homes and 20 billion sq. ft. of commercial space that will consume, at current rates, an additional four quadrillion BTUs annually. It is estimated that 80-85% of all buildings will be newly constructed or rehabbed/renovated by the year 2035. Updating local codes to achieve carbon neutral 2030 goals will result in substantial energy reductions.
- ***Energy Audits and Retrofits for Existing Buildings:*** The existing building stock utilizes significantly less-efficient energy technology and therefore accounts for the majority of energy consumed by building sectors. Local programs that perform energy audits to identify cost-effective retrofits in the public, non-profit, residential and business sectors would yield significant increases in energy efficiency through the removal of outdated and inefficient technology. The EEBG would expand building energy retrofit programs in communities, resulting in significant savings.
- ***Community-based Energy Conservation Programs:*** The most cost-effective and immediate way to increase energy efficiency and reduce GHG emissions is through personal, behavioral change and participation in energy conservation programs. Local governments can organize these voluntary programs to reduce energy consumption by "turning the lights out"; "turning down thermostats"; conversion to compact fluorescent lighting; performance of home energy audits; etc. Local governments launched over 5,000 community recycling programs in the early 1990s because the populace was energized to participate in such programs to achieve a common public goal. Similar participatory results can be achieved for energy efficiency initiatives that will result in significant energy savings.
- ***Community-based Transportation Programs:*** President Bush has asked the public to reduce gasoline consumption by 10 percent. In order to meet these goals, a mix of conservation and alternative technologies will be required. Cities and counties are well-positioned to launch programs that encourage such activities as car pooling, increased transit ridership, flex-time by employers, and other initiatives to reduce vehicle miles traveled. These programs can also address alternative fuel distribution systems at the local level that will encourage fossil fuel alternatives.
- ***Promotion of Alternative Energy Technologies:*** Cities and communities are often the laboratories for the application of new energy technologies that require demonstration before they are fully accepted by the broader public. By establishing and fostering such demonstration programs, cities can expedite the acceptance of new and innovative technologies at the community and business level, resulting in significant energy savings. Through development of local programs that promote alternative energy technology, cities and counties will significantly increase the rate of adoption of these technologies by businesses, commercial buildings, and homes.
- ***Design for Energy Efficient Communities:*** Cities can design for more energy efficiency through promotion of transit-oriented development; mixed-use development; alternative transportation use; pedestrian-oriented communities; and other design approaches that encourage fewer vehicle miles traveled.
- ***Engagement of Citizens and Key Sectors***: Full-scale city and county energy initiatives will yield high rates of citizen participation and serve as catalysts for action among the business, non-profit, educational and general public sectors to carry out a variety of energy reduction and climate protection activities that benefit the entire community.

The U.S. Mayors Climate Protection Agreement

(As endorsed by the 73rd Annual U.S. Conference of Mayors meeting, Chicago, 2005)

A. We urge the federal government and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012, including efforts to: reduce the United States' dependence on fossil fuels and accelerate the development of clean, economical energy resources and fuel-efficient technologies such as conservation, methane recovery for energy generation, waste to energy, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels;

B. We urge the U.S. Congress to pass bipartisan greenhouse gas reduction legislation that 1) includes clear timetables and emissions limits and 2) a flexible, market-based system of tradable allowances among emitting industries; and

C. We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities such as:

1. Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan.
2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities;
3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit;
4. Increase the use of clean, alternative energy by, for example, investing in "green tags", advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology;
5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money;
6. Purchase only Energy Star equipment and appliances for City use;
7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system;
8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel;
9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production;
10. Increase recycling rates in City operations and in the community;
11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO2; and
12. Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

Appendix 6 – Rosters

2009 Keep Akron Beautiful Board of Directors

Thomas J. Clark
*Paul Feezel
Susan Gippin
David T. Gowans
Karen W. Ingraham
Allan Johnson
James D. Kraus, Chair
Sue Kruder
*Pat Kunklier
Frank LaRose
*Vincent Lobello
*Kevin Lockett
*Kim Marcus
Douglas H. Mathey
Donald L. Mittiga
Jeffery Plasky
*Terry Reagan
Ralph Thompson
Ronnie Williamson
Capt. Daniel Zampelli

*Greenprint for Akron Task Force Members

Greenprint for Akron Green Ribbon Panel

City of Akron

Dave Lieberth – Mayor's Chief of Staff-Mayor's Office
Rick Merolla – Service Director
Paula Davis – President & CEO, Keep Akron Beautiful, Greenprint Director
Mark Albrecht – Economic Development/Brown Fields -Corporate Development
Joette Anderson – Community Health Assessment Health Promotion Division
Gary Arman – Building Maintenance - Manager
Pat Ashbrook – Purchasing
Joe Asher – Highway Maintenance-Superintendent
Brad Beckert – Engineering-Environmental
Ralph Coletta – Engineering Manager
Jerry Egan – Comprehensive Planning Administrator
Dave Gasper –Traffic Engineering
Brian Gresser –Mgr. Waste Water Treatment Plant Water Pollution Control
Pat Gsellman – Manager Engineering Environmental
Bill Hahn – Engineering-Construction
Genny Hanna – Engineering-Environmental
Mike McGlinchy – Public Utilities Manager
Jon Malish – Engineering-Construction
Frank Markunas –Health Department
Tina Merlitti – Ward 7 Council Representative
Diane Miller-Dawson – Director of Finance
Michael Pickett – Sanitation
Randy Rose – Building Maintenance
Adele Roth – Economic Development Manager
John Valle – Deputy Service Director
Jeff Walck – Motor Equipment
Mark Williamson – Economic Development/Media
John York – Law Department

Summit County:

Susan DeChant - Comprehensive Planning Administrator

Keep Akron Beautiful Task Force:

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Assistant Project Manager

www.keepakronbeautiful.org/greenprintforakron

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